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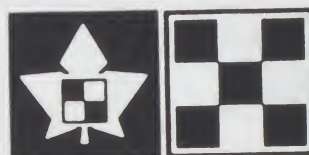
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The QWI

The Quebec Women's Institutes' section of *The Macdonald Journal* containing information on current activities and up-coming events at the Branch, County, Board, and Provincial levels may be found on pages 28 to 31.

Cover



The rich, muck soil in the Napierville area of Quebec is ideal for vegetables such as the celery, onions, and, as shown above, iceberg lettuce, grown by Jean-Bernard Van Winden, who is President of La Fédération des producteurs maraîchers du Québec. Our cover, taken by Aline Grenier, BSc (Agr) '85, who is a Faculty Lecturer in the Diploma Program and a graduate student in Plant Science, is a natural for this issue as the lead articles discuss various aspects of gardening – to quote the first title – “From Horticultural Research Plots to the Home Garden.” The articles in this issue, which are based on some of the research done at Macdonald, will be of interest not only to the commercial producer but also to the home gardener. Thanks to the staff and students for their photos and articles on vegetables, fruit, flowers – even the front lawn. Good late spring reading which we hope you will enjoy. Please also take a moment to read “From the Dean's Desk” on page 4. It is important that you do.

Editor

Hazel M. Clarke

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Professional Practice (Stage) in Dietetics
School of Dietetics and Human Nutrition
for “Issues in Human Nutrition”

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for news from the Graduates'
Society and Development Offices

Cover by

Aline Grenier

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From the Dean's Desk

Message to Our Readers



The support which the Macdonald Campus is receiving this year, by all measures, especially in these difficult times, is exceptional.

It is such loyal support that has kept our Macdonald Journal going in spite of rising postage, printing, and related costs. These costs were offset to some extent by our subscribers, combined with support from our special sponsors, the Annual Fund, and

from the modest income generated by The Macdonald Journal Endowment Fund.

However, the challenge now facing all of us on the campus is to reach out and network with our wider community. We must regularly be in contact with all our graduates and the communities we serve. Our achievements and, particularly, our national and international mission recommend that we use all our resources wisely and with the greatest impact.

For these reasons, we must dramatically change our communications medium. I'm confident you'll understand why *The Macdonald Journal* is ceasing publication with this, the May issue.

As we salute the tireless efforts of the editor, Hazel Clarke, who almost singlehandedly kept the Journal moving forward, we are excited by a new and extensive approach to our communications. Hazel's commitment has placed us in a position to launch a project that will more than triple

our readership. We know that her talents will be a valued contribution in our new approach.

The loyal involvement of our subscribers and sponsors can further this plan. If you are currently a subscriber or sponsor, the balance of your subscriptions or sponsorship will automatically be added to the endowment income fund, unless you determine otherwise. The endowment income is dedicated to reporting to our graduates and friends on Macdonald.

We will soon begin renewed communications with our community. Your interest and encouragement for this change will strengthen the resolve of the faculty, staff, students, and the Macdonald Branch to be forward looking as we bid farewell to the Journal and welcome a new communications package.

Dr. Roger B. Buckland
Vice-Principal (Macdonald Campus)
& Dean, Faculty of Agricultural &
Environmental Sciences



With the wind chill, it was -37°C , the coldest Annual Woodsmen's Competition ever held at Mac, but 28 teams from Canada and the U.S. still managed to put on a good show. Mac "A" team took first place honours, Mac "B" team placed third overall, and the Mac woodswomen placed second. Congratulations! Above, Mac women in the Swede Saw event.



Assistant Deputy Minister responsible for Education and Research, MAPAQ, Diane Vincent, visited Macdonald to give a presentation to the academic staff on a five-year plan for education to meet the challenges of the future. Above, welcoming Diane Vincent, centre, were, l to r, Associate Deans Marcel Couture, Community Relations, Urs Kuhnlein, Research, Deborah Buszard, Academic, and Dean and Vice-Principal Roger B. Buckland.



Class Action '92: The graduating Class of '92 phonathon brought in an encouraging \$2,500 before the evening was over. The goal for the class gift was \$5,000 which will help establish a Students' Society fund to support student activities. Above, McGill's Class Agent, Ian Pilarczyk, BA'92, left, with Karen MacDougall, '94, Jack Thomson, and Mac Class Agent, Rhonda MacDougall.

From Horticultural Research to the Home Garden

by Professors Katrine Stewart & Deborah Buszard
Department of Plant Science



Professor Buszard in the apple orchard at Macdonald.

Canadian gardeners benefit from horticulture research programs around the world. The seeds and plants you buy today are adapted for our region with its short growing season. They are hardy, pest and disease resistant. These plants are the result of breeding programs in Canada and abroad. One example of a successful new range of plants is the hardy roses bred by Agriculture Canada, known as the Explorer

series, with names such as Cabot, Martin, Frobisher, and Champlain.

The mixes that you buy to start your seedlings have been chosen to ensure the plant roots will have the best possible growing environment and will adapt to transplantation. New fruit, vegetable, and ornamental varieties have all resulted from breeding programs and research to determine their adaptability.

Recent concerns about pesticide use have challenged researchers to come up with alternatives for home gardeners as well as commercial horticulturists. The development of pest and disease resistant varieties allows gardeners to select crops which do not require pesticides to protect them from pests or diseases. New organic soil supplements are alternatives to traditional chemical fertilizers, developed through basic research in horticulture and soil science; they are now available to gardeners.

In the research laboratories and greenhouses, the Horticulture Research Area, and at

test plots throughout the province, Macdonald staff and graduate students are among the leaders in horticultural research



Professor Katrine Stewart, Research Associate Sylvie Jenni, and Aline Grenier in a Campus greenhouse.

in Quebec. In the November 1990 Journal column Seeking Solutions we introduced the strawberry cultivar Chambly bred specifically for Quebec growing conditions. In the pages that follow we take a brief look at some of the other research we are working on.

Making Quebec Vegetables Competitive

by Professor Randall Westgren
Department of Agricultural Economics and
Professor Katrine Stewart, Department of Plant Science

When Canadian vegetables arrive at the northern terminal markets of Boston or New York, they often receive a less than polite reception. In many cases the fault is not with the produce but rather that it is not presented in the required format. There exists in the industry the "California Standard" for crops. This standard refers not only to the quality of the goods but also to the packing and presentation. For example, Quebec lettuce growers have traditionally packed and shipped 18 large lettuce heads a box. This is the standard we use within

Quebec as well as for export. Unfortunately, the "California Standard" is 24 heads to a box. The heads are smaller than those of Quebec. From the Quebec perspective, the brokers/buyers were getting a better deal because they were getting larger, heavier lettuce. From the brokers' perspective boxes containing 18 as opposed to 24 heads are more trouble than they are worth. The heads may be larger than needed, and instead of being able to make a standard box calculation for their buyers they must make special adjustments. Often, they will discount the price because of the nuisance

factor. They may also delay selling the lettuce and this can, in turn, mean that its quality will decline as the length of time in storage increases.

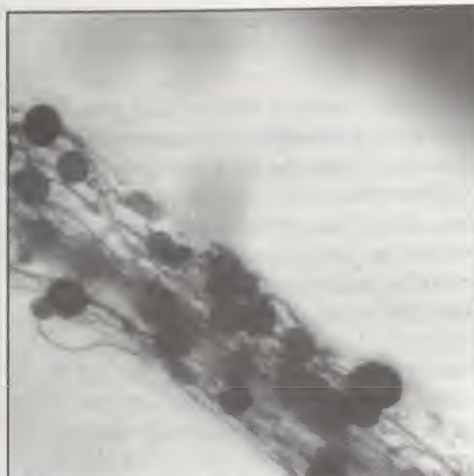
If Quebec growers are to be more competitive in these markets, they must know and conform to the "California Standard." A joint study is underway between Drs R. Westgren and K.A. Stewart, of the departments of Agricultural Economics and Plant Science respectively, to help make Quebec vegetables more competitive.

Vegetable Transplants and Fungi: A Growing Combination

by Aline Grenier, Faculty Lecturer, Diploma in Agriculture Program
and Graduate Student, Department of Plant Science

The use of young seedlings for transplanting vegetable crops requiring an extended growth period is necessary in our northern regions. Field establishment and growth depend largely on the quality of the seedlings which can be improved with the use of endomycorrhizal fungi. These fungi occur naturally in soils throughout the world and live in close association with over 90 per cent of superior plant species. Although their existence has been known to us since the last century, it is only in the mid 1950s that their use for agriculture was made possible when different species were isolated and grown under controlled conditions.

The association between endomycorrhizal fungi and plants is beneficial for both partners. The fungi penetrates into plant roots and furthermore extends into the soil forming a complex network of fine strands called mycelium. The mycelium increases the volume of soil explored by plant roots. It absorbs soil nutrients such as phosphorus and transfers it to the host-plant. The plant, in return, supplies carbon compounds necessary for the growth of the fungi.



Microscopic view of endomycorrhizal fungi colonizing the root of an onion plant.

Trials conducted for the past two years by Professor Katrine Stewart and the author show that growing seedlings with endomycorrhizal fungi increases the size of vegetable transplants. Subsequent growth in the field is also improved when the transplants used are endomycorrhizal leading to an increase in the size of leek and romaine lettuce and yield in tomato. Crop maturity



Young lettuce seedlings inoculated with endomycorrhizal fungi in the Macdonald greenhouse.

is also advanced as was observed in endomycorrhizal pepper plants which produced more fruit earlier in the season.

A growing medium containing endomycorrhizal fungi has been available since late 1991, and the home gardener may soon be able to purchase endomycorrhizal vegetable transplants from garden centres.

Brown Rib of Lettuce

by Professor Katrine Stewart
Department of Plant Science

The last two years have been hard ones for lettuce growers in Quebec. Prices are down and there is increasing competition from the United States, particularly California. For those growers in the muck soil area south of Montreal there is an additional problem. Iceberg lettuce, which is the most important of the lettuce types we produce, has developed a disease called "nervation brune" or brown rib. This physiological problem occurs when the plant is subjected to high temperatures as it approaches maturity.

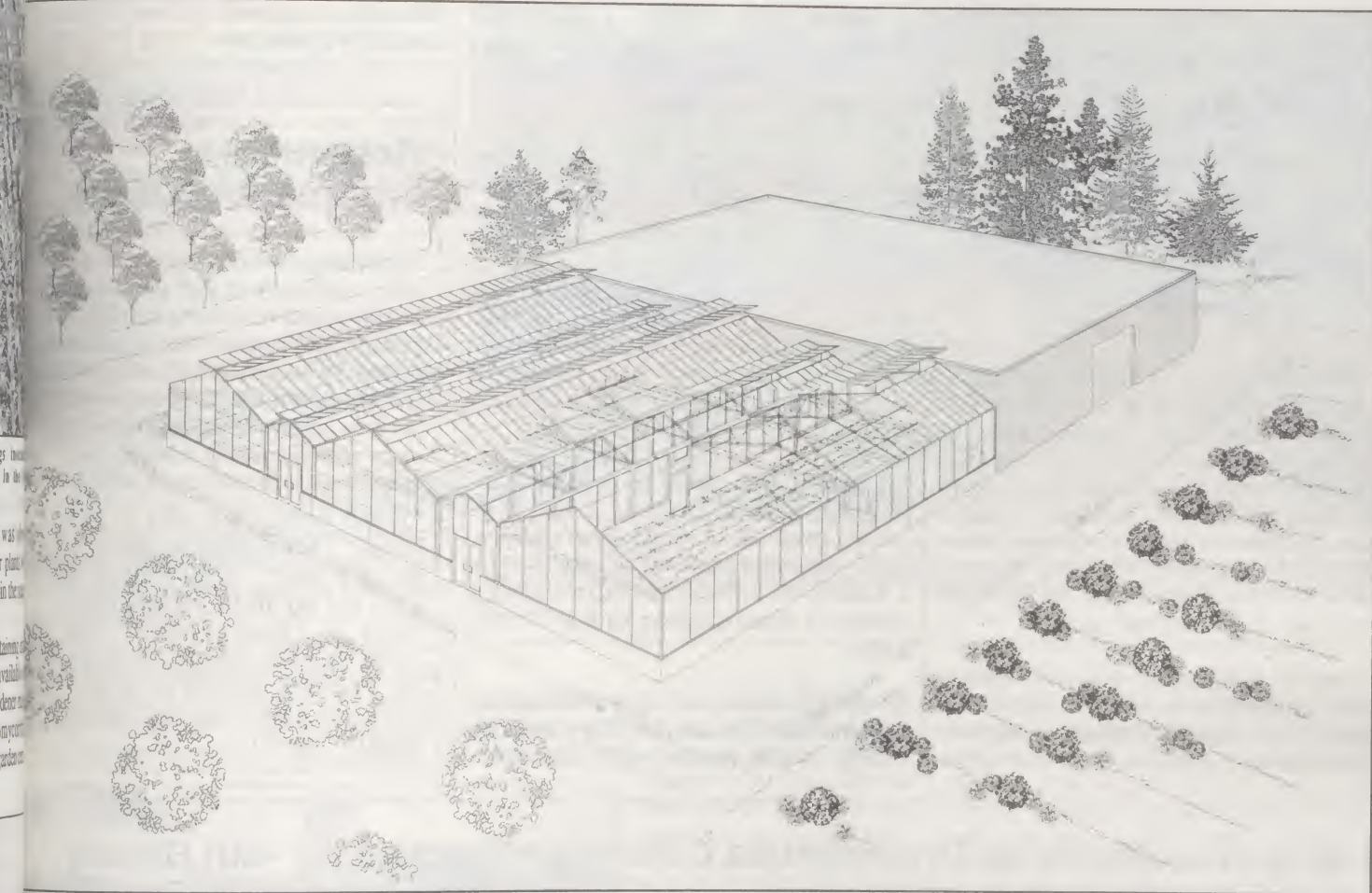
Last year we were awarded a Quebec Canada Entente to study this problem. Initially

we needed to know the extent of the problem both in terms of numbers of fields affected and the percentage of "nervation brune" within the field. The field screening was done by the Réseau de dépistage et de recherche du Sud de Montréal, as they have established an excellent network of growers. They found that the problem is widespread in the regions south and west of Montreal.

Concurrent with the survey we carried out management trials. We compared Ithaca, the most widely grown iceberg variety, with Montello and South Bay, two new

varieties out of the US. We found that Ithaca was indeed more sensitive than the other two. Since the problem is brought on by high temperatures, we used various treatments (irrigation, mulching) to lower both air and soil temperatures. When air temperatures were maintained below 30°C, the percentage of plants with "nervation brune" was reduced. Harvesting the crop before its normal maturity date also reduced the incidence of the disease. These are the preliminary results. We will be repeating the trials this year and hope that we will be able to make recommendations to the growers by the spring of 1993.

New Million-Dollar Greenhouse Planned for Campus



Plans have been unveiled for a new, free-standing 450m² (5,000 sq.ft.) research greenhouse to accommodate advanced research at Macdonald. The faculty has attracted many active research scientists to its staff, among them a number of newer graduates trained in molecular biology. One result is rising demand for a precision-controlled environment for year-round use. The facility will cost \$1.2 million.

More and more scientists are using molecular and ecological approaches to improving plant productivity. This places greater demand on evaluating plant performance under both normal and stressed conditions

with careful climate control. It demands a specialized research greenhouse.

Environmental concerns and the move towards sustainable development have encouraged increased interdisciplinary cooperative research. The new facility will serve not only agronomists and horticulturists but also agricultural engineers, soil scientists, forest ecologists, entomologists and nutritionists – all experimenting on living plants.

The greenhouse will be located in the Horticulture Research Area, near the orchards, small fruits plots, and the horticultural ser-

vice building. The new facility will increase total campus greenhouse space by 50 per cent. The triple peak design will house three bays providing nine research compartments. Modern equipment will supply all the advantages needed for efficient heating, ventilation, lighting, irrigation, and carbon dioxide (CO₂) control. Associated with the greenhouse will be new growth chamber facilities.

The faculty is currently seeking support for this \$1.2 million project. For information, please contact Dr. Don Smith, Department of Plant Science, Macdonald Campus, 514-398-7866.

Scab Resistant Apple Cultivars

by Professor Deborah Buszard
Department of Plant Science



Left, scabby apple; right, the perfect fruit.

Most people like the idea of a beautiful McIntosh apple tree in their backyard, scented blossom in the spring and a bountiful harvest of perfect fruit in the fall. The reality, however, is that the use of many pesticide applications, traditionally necessary to achieve those picture perfect fruit, is more effort than most of us want. Furthermore, few of us wish to apply the necessary pesticides in our own backyard.

Recent developments in apple breeding have produced new cultivars with resistance to the fungus *Venturea inaequalis* which causes Apple Scab, our main apple

disease problem in eastern Canada. This disease is so damaging to non-resistant types that it is not uncommon for farmers to apply fungicides eight or ten times per season to protect the trees. The advent of the new cultivars removes the need for these sprays, thereby cutting costs and facilitating reduced or zero-pesticide apple production. Two of the new introductions, Richelieu and Rouville, were bred here in Quebec by Agriculture Canada, both red-green apples; Rouville ripens in mid-August while Richelieu is ripe in mid-September. Other cultivars in this group include Macfree, Liberty (also resistant to cedar apple rust), Freedom and Trent.

While using these cultivars does not solve all pest and disease problems, it does obviate the need for a regular fungicide program, and insect pests can be controlled by a variety of environmentally-friendly strategies from trapping to insecticidal soaps.

At the Macdonald Campus Horticulture Research Area we are currently evaluating a range of scab resistant apple cultivars in

different management systems for juice and fresh fruit production.

Horticultural Information Centre

Again this summer, as in the past 11 years, students will staff the Horticultural Information Centre (HIC) on the Macdonald Campus. The centre is supported by a Summer Challenge Grant and provides a much needed service for the community. At the same time, it provides valuable public relations and educational experiences for the students.

"When is the best time to trim my hedge?" "My evergreens appear brown and dry. Why?" "What fertilizer should I use for my trees, shrubs, flowers?" "How do I control ants?" "How do I care for a new lawn?" If you are having problems or need an answer to a gardening query, may we suggest you call 514-398-7971.

Using Fruit Plants as Ornamentals Combines Practicality with Beauty

by Professor Deborah Buszard
Department of Plant Science

Nothing tastes better than freshly-picked fruit straight from the garden, but few people realize how easy it can be to incorporate productive fruits into even the smallest backyard garden. Fruit plants are attractive, easy to grow and provide an interesting alternative to the usual shrubs and perennials found in our gardens.

Large apple or crabapple trees can provide deep shade during the summer as well as beautiful spring blossom and an annual harvest. They can also be grown on dwarfing rootstocks and trained as hedges or grown against walls or fences in the smallest garden.

Pears, plums or cherries can also be trained as espaliers in confined areas and make an interesting alternative cover for an ugly fence or wall.

Cane fruits such as raspberries or blackberries can be grown as hedge plants or on trellises.

In the eighteenth century strawberries were grown in France as ornamental plants for their attractive flowers. They make excellent bedding plants providing a good ground cover, white flowers in May, and a delicious harvest later in the season. Newer cultivars, such as Tribute and Tristar, pro-

duce fruit all season long until the first frost in the autumn. When using strawberry plants in landscaping it is important to replace them with new plants every two years to keep the bed productive.

Another plant which can be adapted to ornamental planting is the grape. Although we can't grow the fine wine grapes of Europe, there are some good hardy cultivars which produce quite edible grapes in eastern Canadian conditions. They are vigorous and can be grown over trellises or walls, or over an elevated horizontal frame-work to make a leafy roof over an outdoor terrace or patio.

Perennials: A Growing Business

by David Wees, Agr
Department of Plant Science

For many years annual flowers, cedar hedges, and grass have been the mainstays of the Quebec urban landscape. Recently, however, herbaceous perennial flowers such as peonies, hosta, columbine, larkspur, and irises have been moving to the forefront. Indeed, since the mid 1980s, sales of perennials have increased yearly by 6 to 22 per cent. About \$2 million worth of perennials are now grown in Quebec nurseries.

Many bulbs, roots, and rhizomes used for propagating perennials are imported from Europe or the United States. Unfortunately, they are often of poor quality and not hardy enough for our winters.

Since 1988 I have been collaborating with Printemps-Vivace, a perennials nursery in Ste-Madeleine, Quebec. Printemps-Vivace propagates several species by planting them in the field, letting them grow for a season or two then digging up the roots and dividing them. In our project, we wanted to see if we could get more divisions per plant by fertilizing with nitrogen (using calcium nitrate). We also wanted to observe disease and insect problems as well as winter survival.



A field of daylilies at Printemps-Vivace.

Printemps-Vivace deals with approximately 160 cultivars of perennial flowers. Our project concentrated on 10 of them: 2 cultivars each of peonies (*Paeonia* sp.), iris, bleeding heart (*Dicentra* sp.), daylilies (*Hemerocallis* sp.) and hostas.



The All-America Selections (AAS) display garden in front of the Centennial Centre. Every year, outstanding new varieties of bedding plants are chosen by the AAS committee for their garden performance. The best cultivars are planted in display gardens throughout North America before being released to the general public. The Macdonald Campus site is one of only two AAS display gardens in Quebec.

After three years, we came up with the following results for the fertilization experiments. For the common orange daylily,

Hemerocallis fulva, and for one type of hosta, *Hosta undulata* "Albo-marginata," banding with 67 kg N/ha one week after planting seemed best. For *Iris sibirica* "Salem Witch," *Hosta crispula*, *Dicentra spectabilis* (the common bleeding heart) and the two peony cultivars a split application of 27 kg N/ha one week after planting and another 40 kg/ha three weeks later gave the best results. With *Hemerocallis* "Sammy Russell," *Iris germanica* (bearded iris) and *Dicentra* "Luxuriant" (a dwarf bleeding heart) nitrogen fertilization showed little benefit.

There were very few disease or insect problems in the nursery. Indeed, most perennials

are fairly resistant. Flea beetles slightly damaged the peony leaves in mid-summer, and some iris and peony roots rotted in storage. The biggest problem was weed control; it took five to six full days to hand weed one hectare. Herbicides are tricky to use as they may damage several species of perennials (as we found out!).

All the species were quite winter hardy despite tough winter conditions: freezing, thawing, and lack of snow cover. The only one that gave us problems was *Dicentra* "Luxuriant." We lost half the plants during the first winter and three-quarters during the second.

Working on this project was definitely a positive experience for me. It gave me a better appreciation of the ornamentals industry in general and perennial flower production in particular. It also got me involved with on-farm research. I think this last point is the most important as it shows how Macdonald can get involved in the farming community.

Ecological Lawn Maintenance

by Dr. Stuart Hill, Director
and Barbara Walsh, Research Associate
Ecological Agriculture Project

More and more people are wondering whether there is a way to have a lush lawn without chemicals (Rubin, 1989). That is, without the sort of chemicals that one is confronted with in the garden centre or on a lawn care contract – chemicals like 2-4-D, a suspected carcinogen (Rainer and French, 1985), and Diazinon, which has been implicated to massive bird kills on golf courses (Tattersall, 1991). Links have even been found with the level of pesticide use in the home and garden and the risk of children in that home developing leukaemia (Lowengart, 1987). Don't panic, a healthy green lawn without chemicals is attainable. However, taking an ecological approach does require a little more work: the setting of realistic weed tolerance levels, diligent routine maintenance, and regular pest monitoring (Envir. Can., 1991a).

Establishing Weed Tolerance Levels

The most important element of this approach is to become familiar with your lawn and with your real needs. Set tolerance levels for weeds in accordance with the lawn's intended use. Some weeds can be beneficial, particularly white clover, which can fix nitrogen from the atmosphere and make it available to the grass. Even dandelion, with its long tap root, will aerate the soil and accumulate trace minerals, and its flowers, in addition to being attractive, will provide food for minute parasitic wasps that will control pests in the rest of the garden. Weeds also provide important information about soil conditions including pH, drainage, compaction, and trace mineral deficiencies (EAP). Remember, one person's weed is another's prized flower or ground cover. In fact, you might consider other mixed species ground covers as alternatives to the problematic grass monoculture.

Routine Maintenance

A properly maintained lawn is less susceptible to weeds, insects, and diseases. Pest problems will decrease over the years as

you improve the biological activity in your soil (by adding organic fertilizers), and as you develop an ecological maintenance regime. The following items are often part of a routine lawn care system.

Dethatching: Thatch is an undecomposed layer of roots and stems that accumulates at the soil surface. It prevents water and top dressed nutrients from reaching the soil. If this condition exists, it may indicate acid soil. Thatch can be removed, preferably in the fall, with a dethatching rake, and the pH can be corrected with lime (1 lb for each 0.1 pH below the optimal pH of 6.5 for every 100 sq.ft. of lawn).

Aeration: Soil compaction from heavy "traffic" reduces the pore spaces between the soil particles. This impedes drainage and prevents the roots of the plant from "breathing". A manual or power "coring tool" can be used to remove a small core of soil, which will allow the air to penetrate. This step should be followed by overseeding and a top dressing of sieved organic fertilizer.

Overseeding: This is the process of introducing competitive grass species that will grow in the openings created by dethatching and aerating. It is best done in the fall when conditions are cool and moist. A mixture of locally adaptable, competitive seed varieties, sieved compost, and sand can be broadcast over the lawn. Finally, the seeded area should be raked and well watered to insure proper seed germination. The use of a net or other device to repel birds will also be helpful.

Fertilizing: Ecological lawn maintenance relies on slow release organic and crushed rock fertilizers and avoids the highly soluble synthetic formulations. Bags with numbers on them like 20-10-20 are likely to include the latter, whereas those with lower numbers such as 1-3-2 are more likely to be based on organic materials. Commercial services often use liquified or powered seaweed, fish meal, animal manures, blood

meal and compost (Beaubaire, 1992). If you really want to be "organic", do not be misled by commercial services that argue that their urea is "organic". It is not. It is synthesized artificially, using fossil fuels, and is a highly soluble source of nitrogen that may make the grass more attractive to certain pests. If you really want to be ecological, make your own fertilizer by establishing a compost heap (EAP). Fertilizing is an area where you can have some fun experimenting. Try different amendments on different parts of the lawn and, based on what happens, select the best treatment for your lawn. Remember, however, that the faster the grass grows, the more often you have to cut it!

Mowing: Improper mowing is a common cause of weed and pest problems. Mowing height should be seasonally adjusted to minimize stressing the grass. During the summer months, the recommended height is 7.5 cm, to enable the grass to continue to shade out the weeds and protect the soil. In the spring and fall, cut the grass a little shorter (no shorter than 3.5 cm) to stimulate root growth. Because grass clippings provide a valuable source of nutrients, especially nitrogen, leave them on the ground. If they are not too long, they will soon disappear. Grass cuttings that are too long will contribute to the thatch layer and should be raked up and composted.

Watering: Shallow, frequent watering causes poor root growth and increases nutrient leaching. Deep, infrequent watering, on the other hand, will promote deep root growth. Water in the early morning to allow the lawn to dry before the evening. Excessive moisture during the night may encourage fungal growth.

Pest Monitoring

A pest problem is a sure sign that something needs to be corrected in the system of lawn management. The key is to identify the cause and correct the problem. Emer-

(Continued on Page 11)

The Canadian Society for Horticultural Science Meets at Macdonald

The Quebec section of the Canadian Society for Horticultural Science (CSHS) met at Macdonald Campus on March 5, 1992. The theme was "Cultivars made-in-Quebec: our genetic wealth." Five speakers discussed plant breeding and genetics as related to horticultural crops. Shahrokh Khanizadeh, MSc(Agr)'83, PhD'90, presented his research on strawberry breeding. Raymond Granger, PhD'79, discussed the development of scab-resistant apple cultivars. Ian Ogilvie, BSc(Agr)'56, MSc(Agr)'70, presented the "Explorer" hardy rose series from Agriculture Canada. Tony Huber, from W.H. Perron Ltd., presented his research on *Iris versicolor* and its use as an ornamental. Finally, Marc Fortin, of the Department of Plant Science, discussed the role of genetic engineering in plant breeding; he is particularly interested in virus resistance in lettuce.



Discussing the CSHS meeting, from left to right, Dr. Ralph Estey, Emeritus Professor in the Department of Plant Science and Charter Member of CSHS; David Wees, Plant Science Department and Quebec Director of CSHS; Aline Grenier, Faculty Lecturer in the Diploma Program; Dr. Shahrokh Khanizadeh, Agriculture Canada; Dr. Ian Ogilvie, Agriculture Canada, and Johanne Cousineau, PhD candidate in the Plant Science Department.



Mac graduates get together, l to r, Marie-Claude Limoges, BSc(Agr)'84, is a nursery crops specialist for the Institut Québécois de Développement de l'Horticulture Ornementale; David Wees, BSc(Agr)'84, MSc(Agr)'87, showing off *The Macdonald Journal* (a photo of his was on the cover!), and Christiane Laberge, BSc(Agr)'83, MSc(Agr)'86, who teaches at the Ecole d'Horticulture Louis Riel at the Montreal Botanical Gardens.

(Continued from Page 10)

agency pest problems, such as a chinch bug or grass grub outbreak, can be treated safely (EAP; Envir.Can., 1991b). Avoid highly toxic, persistent, synthetic materials and choose natural products that break down quickly and are least toxic. The key is not to rush from one curative solution to another but to manage the lawn in such a way that it is not attractive to pests. A few insects should be tolerated because a world in which insects cannot survive is also one in which we cannot survive.

Conclusion

This season set realistic objectives and follow a routine maintenance plan based on

the above suggestions. Monitor and evaluate your lawn for early warning signs of problems. Correct any unfavourable condition using an ecological strategy. Inform yourself rather than relying on a chemical salesperson. Once sound workable practices have been implemented, share them with your neighbours, thereby helping to provide a more natural, healthy, and less toxic neighbourhood. Happy gardening!

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Seeking Solutions

How to Keep Cut Flowers Longer

by David Wees, Agr
Department of Plant Science

Roses, carnations, chrysanthemums, and many other species are popular cut flowers. Unfortunately, cut flowers are probably the most perishable of all crops. Roses, in particular, will often fade and wilt within a few days of purchase.

Why do cut flowers die so quickly? There are two major reasons: water and ethylene. Students in the Greenhouse Management course tested the post-harvest life (or vase life) of cut roses. The goal was to find out what can make roses last longer.

First they cut the base of each rose stem under water. If you cut a stem in air, the stem (more specifically the xylem) will suck up air. Air bubbles trapped in the xylem will prevent water uptake even when

the stems are placed in a water-filled vase. The students then placed the roses in vases with warm (35°-40° C) water. Stems absorb warm water much faster than cold water. They then added different chemicals to the water: bleach, 7-UP, 20-20-20 (a fertilizer) or a floral preservative (this can be bought at a florist's). Plain water was used as a control. The roses lasted longest with the floral preservative. However, the 7-UP mixed with water (1 part 7-UP to 3 parts water) did almost as well. The 20-20-20 solution and the bleach solution gave the worst results.

So what's so great about 7-UP? It contains sugar that will feed the rose as the flower cannot produce much food of its own by photosynthesis at this point. 7-UP also contains citric acid, and this lowers the pH to about 3.5 to 4 and kills bacteria that might otherwise grow inside the cut stem and prevent water from entering.

Commercial floral preservatives usually contain sugar and citric acid. They may also contain other chemicals such as chlorine that will kill bacteria, and that is why we tried bleach. Unfortunately, our bleach solution was too strong, about one per cent, and damaged the flowers.

Floral preservatives never contain fertilizers since cut flowers have little need of minerals. The preservatives often contain chemicals that will counteract the effects of ethylene. Ethylene is a gas that is also a plant hormone. One of its many effects is to cause senescence (death and decay) of flowers. Ethylene can come from many sources: ripening fruit, car exhaust, cigarette smoke, even flowers themselves. Hence the importance of using anti-ethylene compounds in floral preservatives. Also, make sure you never put your flowers near a bowl of fruit or they will die much faster than normal.

About 20 per cent of all cut flowers die after the grower harvests them but before they reach the consumer. And many more die within a few days after purchase. By following a few simple steps (cutting the stems under water, placing the flowers in warm water, using a floral preservative or 7-UP), the grower, the florist, and the consumer can make roses and other cut flowers last longer.

Training for a Great Future

Undergraduate programs in Horticultural Science or Horticultural Business Management at the Macdonald Campus of McGill University are an excellent training for a wide range of careers in Canada's expanding horticultural industry. The programs include both basic and horticultural science courses with plenty of opportunity for "hands on" learning at the Campus horticultural facility.

The Horticulture Business Management program also gives students training in management, marketing, and economics, vital for anyone in the commercial horticulture industry.

Many students go directly from the BSc to careers in horticulture that may range from landscaping to vegetable production. Others pursue further study, leading to MSc or PhD programs and careers in the advisory or research field. The choices are wide and many opportunities exist for enthusiastic horticulturists around the world.



Composting at Macdonald: managing organic wastes on the farm is a primary concern on the Macdonald Campus. The composting of by-products such as animal manures, straw, old hay, fallen leaves, and wood chips is now an integral part of the management of the Campus Farm as well as in the horticulture area. The humus-rich material produced in this manner is used as an organic fertilizer to increase the organic matter content and the biological activity of the soil. The recent acquisition of a compost turner will facilitate the work involved in producing good quality compost.

Is There Life After Mac? Yes! In Horticulture

personal contacts, telephone calls, and the marvels of the speedy Fax machine have allowed staff at Macdonald to catch up on the news of several recent graduates with careers in Horticulture. Here, and in the short article on the Canadian Society for Horticultural Science meeting, is a sample of, as John Argall said, "life after Mac." Sounds rather special!

GERALD CHEVRIER, who came to Macdonald from Stanley, N.B., majored in General Agriculture and graduated BSc(Agr) in 1979. He continued his studies and received his MSc in 1983 studying in Horticulture and Plant Science. Before heading back to New Brunswick in 1988, Gerry held a variety of interesting positions in and around Macdonald. From 1983 to 1985 he worked in the Department of Plant Science with Drs Chong and Stewart in the provincial vegetable cultivar and ornamental trials. He also worked as a Research Assistant to Dr. Chong in his research on breeding cole crops for resistance to clubroot disease. During this time he was also an instructor for an adult education program in greenhouse production for the Protestant Regional School Board of Chateaugay. He worked as a field manager for Cramer Nursery from 1985 to 1986 and was involved with pest management, planting, and harvesting operations.

Gerry was a Faculty Lecturer in the Department of Plant Science from 1986 to 1988. He taught courses in Fruit Production, Vegetable Production, Plant Science, and Greenhouse Crop Management at both the diploma and degree levels. This popular lecturer returned to New Brunswick in 1988 to become a Provincial Vegetable Specialist for the province. He worked out of Fredericton and was involved in advisory services – educational workshops, seminars, on-farm extension and information service. He also adapted research projects to develop and promote vegetable production in New Brunswick.

In 1991 he became Horticulture Section Head in the Plant Industry Branch of the New Brunswick Department of Agriculture

in Fredericton. He is responsible for developing and managing programs and policies affecting the N.B. horticulture industry. He is involved in the implementation of research and extension programs in conjunction with specialists in various sectors of horticulture.



While at Macdonald, John Argall, second from left, guided many visitors and groups through the Horticulture Research Area.

JOHN ARGALL completed both his BSc, 1980, and his MSc, 1983, in Plant Science at Macdonald. He spent a year away from Mac working as a landscape horticulturist for a public arboretum in Pennsylvania but returned to work on campus until 1989. During those years he managed the vegetable section of the Horticulture Research Area and spent most of his time in research and extension activities related to vegetable crop management. He also gave some lectures during the five-year period.

He next toured New Zealand on a bicycle and enjoyed viewing top-notch horticulture as an observer. A number of horticulture-related positions – writing a user's guide for a horticultural supply company; irrigation studies in a potato breeding program at the Agriculture Canada Research Station in Lethbridge, Alberta, and production management for a greenhouse tomato operation in British Columbia – kept him busy until last September when he became the Provincial Blueberry Specialist for the New

Brunswick Department of Agriculture. "I'm back in the world of on-farm research and extension," John said, "and I'm enjoying the downeast feeling of Fredericton, which I now call home."

PAUL JENSEN, BSc(Agr)'82. MSc(Agr)'85, certainly knows the horticultural industry. As a student, he did some landscaping. After graduation, he worked for a Dutch company specializing in greenhouse vegetable production. He then moved to Mississauga, Ontario, where he was employed by Ball Superior Ltd., a major horticultural wholesale firm (seeds, plants, and so on). He then worked as a production manager for a perennial flower specialist in Blainville, Quebec.

Paul now runs his own horticultural supply company based in Rosemere, Quebec. He deals with ornamental shrubs, perennial flowers, pots and bulbs.

RENE GINGRAS, BSc (Agr)'85) majored in Plant Science. He has a strong interest in plant protection. Indeed, upon graduating, he worked as a private consultant in Integrated Pest Management (IPM), mainly in fruits and vegetables. Since 1990 he has been employed by Cargill Fertilizers Ltd. and is based in St-Remi, Quebec.

MANON THERRIEN, BSc(Agr)'89), majored in General Agriculture and started working in the vegetable crops section of the Régie des Assurances Agricoles du Québec in May 1989. She has been there ever since and enjoys her work. She also works with Marian (see below) on the farm at night and on weekends.

MARIAN VINET, BSc(Agr)'89, majored in General Agriculture. After graduation he travelled to The Netherlands where he worked in organic gardening. Back in Quebec, Marian realized that most of the job openings were for farm managers. He decided to manage his own farm and bought a farm in St-Remi in 1990. He grows broccoli, sweet corn, peppers, and eggplant. Marian also cooperates with the Macdonald Campus for field trials.

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Issues in Human Nutrition

Nutrition education: A link between the university and the community

Linda Jacobs Starkey, University Coordinator
Professional Practice (Stage) in Dietetics, School of Dietetics
and Human Nutrition



Nutrition education is a goal of dietitians in a variety of settings: a community health centre, school or government publications office, an outpatient clinic, patient bedside, health care team

meeting, or a counselling/referral shelter, and many more. Much has been written about evaluating the nutrition education needs of these diverse groups^{1,2} and developing strategies to meet these needs³. However, how do we as nutrition health professionals gain the expertise to call ourselves effective nutrition educators? Some dietitians have a Master of Education or Community Health degree in addition to the baccalaureate and internship preparation. For the majority, however, experience with the guidelines learned in required undergraduate courses and internship experiences are the route to competence as a nutrition educator.

At McGill the dietetic internship is coordinated with the undergraduate degree such that Professional Practice (Stage) in Dietetics experiences occur at four times during the years of study. Development of nutrition education competency is of utmost importance in both the normal and clinical nutrition domains. In this issue of the Journal, the experience offered to our dietetics students in nutrition education and the reciprocity in education that the community offers are highlighted.

Nutrition Education Experiences

Communicating is a primary objective of the nutrition education experiences. To quote Anderson and Valyasevi⁴: "the process of communication we are concerned with is the transfer of messages, the creation of awareness and the encouragement of sound practices." Beginning with the first level of Professional Practice (Stage),

dietetics students are exposed to nutrition education opportunities. Complexity of the message and audience grows throughout the subsequent levels.

The greatest outreach and interaction between the university and the community, in terms of nutrition education, begins with Level III Stage. During the winter semester, approximately 45 students present a minimum of two nutrition sessions each, giving a total of 90 group sessions per year.

Word-of-mouth brings new requests from the community for student participation in on-going club, association, or other group activities. Since 1978 dietetics students, with staff supervision, have completed over 650 sessions and reached groups as diverse as: seniors clubs; youth organizations; brownies, guides, scouts, cubs; school children in elementary schools, high schools, nursery and alternative schools; local teams: hockey, football, swimmers; McGill medical students; and local library or community clubs.

Thereafter, Three special nutrition days requested by the Quebec Farmers' Association were held in Richmond, Bulwar, and, above, Ayer's Cliff.

On a basis requesting recommended dates for nutrition education sessions and the name of the contact person. A roster of possible nutrition education sites is therefore continually updated, as are the topics taught.

Through campus-based sessions and course work, dietetics students learn the basics in nutrition education planning. They then select the target audience with which they believe they would be most comfortable and a schedule matching process is initiated. However, participating groups do change, so it is possible that students who

requested a seniors' group could well find their classes will be with day-care counselors!

Nutrition sessions and workshops also provide a forum for the community to learn more about Macdonald, the programs offered, and "what's new" in nutrition. Sometimes the challenge of a new group or special topic provides the opportunity for the staff to practice what they teach!

Our experiences continue to be rewarding. The dietetics students have the opportunity for skills development and practice; they are seen as a credible source of nutrition information. The participating communities gain by increasing exposure to this reliable nutrition information as well as practicing



Introducing vegetables - Nathalie Babin with an elementary class.

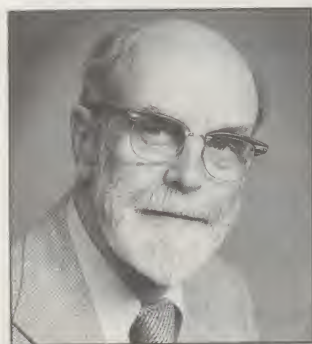
activities to facilitate behaviour change. We believe this model for practice and outreach will continue to be useful to both the university and the community.

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Fun Fact Fable Fiction

by Dr. Ralph H. Estey
Emeritus Professor, Department of Plant Science



Plants Vs Animals

One of the interesting differences between plants and animals is that an old animal has virtually all old tissues and organs

whereas an old plant has a mixture of old and new. On a regular basis, plants produce new shoots, roots, and other groups of tissues while retaining most of the old ones.

McLaughlin Tea Kettles

When General Motors bought the McLaughlin automobile factory in Oshawa, Ontario, they auctioned off some of the McLaughlin machinery. The man who thus acquired the press that had been used to stamp out automobile headlamps from sheet metal, used it to produce tea kettles. That may be why so many electric tea kettles are still shaped somewhat like early automobile head lamps.

Student Answer

Climate lasts all year but weather generally lasts only a few days.

Lone Sailor

In 1969 Sharon Adams sailed alone from Yokohama, Japan, to San Diego, California, a distance of more than 9,000 kilometres (5,600 miles).

Gestation

As a boy on our farm in New Brunswick, I learned the gestation periods of the various farm animals in terms of months, weeks, and days. For example, that of a pig was 3 months, 3 weeks, and 3 days. For sheep, 4 months, 4 weeks, and 4 days. For "work" horses, 9 months, 9 weeks, and 9 days. These, and others I have forgotten, were known to be reasonably good approximations of the gestation periods.

Natural Gas

When dinners are hearty with onions and beans

With garlic and claret and bacon and greens
Your bowels get busy distilling a gas
That Nature insists be permitted to pass
You are very polite and try to exhale
Without noise or odour (you frequently fail).

Royal Gas

Jose Morgan, a Toronto woman who imitates Queen Victoria, tells a story of the monarch accidentally "passing wind" at an official dinner. She quickly turned to her butler and said, "Stop that." The butler smartly replied, "Certainly, ma'am, which way did it go?"

Hot Shot Beetle

When a bombardier beetle is disturbed it sprays its attacker with a jet of boiling chemicals, which it turns on and off about 500 times a second. The principle is the same as in the pulse jet engine that powered the German V-1 buzz bomb during the Second World War – except that it pulsed its jet only 42 times a second.

New Scientist 1990

Blooper

For rent: nice bedroom in a shady district.

Teaching a Calf to Drink

The hardest job on a farm, I think,

Is trying to teach a calf to drink.

You pull and haul, get his head in a pail;

He'll stand there and twist and wiggle his tail;

And the very first thing, kerplunk goes his nose,

And most of the milk goes over your clothes.

Hang on to your patience, your teeth you can grit;

If you can't hold your temper, you might as well quit.

For old mother nature whose methods don't fail

Never meant for a calf to drink from a pail.

Back him into a corner, straddle his neck;

He won't damage you much, you're already a wreck.

Just give him a finger, and maybe with luck

That little old calf will start in to suck.

Pick up your bucket and push his head down,

Then away you go again, around and around.

Just do this a week with your back in a kink,

And maybe by then you'll teach the calf to drink.

Mable and Sable

There once was a lady named Mable
So ready, so willing, so able,
And so full of spice
She could name her own price.
Now Mable's all wrapped up in sable.

A Death Duty

The lowest kind of thief is said to be one who would steal the coppers from a dead man's eyes. That expression refers to the old custom of using copper coins to close the eyes of a corpse. It is not known where or when that practice began, but closing the eyes of the dead is very ancient. In Genesis 46:4 the Lord tells Jacob that "Joseph shall put his hand upon thine eyes." In other words, Jacob would die and Joseph would close his eyes.

Safety First

A specialist in home safety asked his students this question, "What steps should one take when finding gas fumes in the basement?" One student promptly answered, "The basement steps, sir, two at a time."

First Canadian Author

Julia Catherine Beckwith (1796-1867) of Fredericton, New Brunswick, was the author of the first work of fiction written by a native-born Canadian, and the first to be published in what is now Canada. Her first of several novels, "St. Ursula's Convent, or the Nun of Canada," was written when she was only 17. It was not published until 1824, two years after she married George Hart in Kingston, Ontario.

Unholy Fly

The only English Pope, Adrian IV, choked to death after swallowing a fly.

Agricultural Subsidies

The government of Nova Scotia has been providing financial aid to agriculture for more than 150 years. The Journal of the House of Assembly for 1836 shows that "bounties" ranging from 15 to 1000 pounds sterling were granted to a number of mills, chiefly oat mills and woolen mills.

Campus Life

Founder's Day, February 5, 1992

The annual celebration of Sir William's birthday by the Macdonald community was a well-attended and much enjoyed occasion. A toast to Sir William, presentations, and speeches in the Centennial Centre Ballroom in the morning were followed by the cutting of the birthday cake and a sandwich lunch. Except for those decorating the ballroom, it was business and classes as usual in the afternoon until everyone came

"Civilization" which will include over 200 archaeological treasures and will be in Montreal from early May to late September. It will be the largest such exhibition ever held in Montreal.

Dean Buckland spoke of the great contributions that Sir William made to education in the various areas of eastern Canada. "Sir William believed in Canada and committed

his resources to it by building schools in Nova Scotia, New Brunswick, Prince Edward Island, and Ontario, and by providing buildings at the Ontario Agricultural College, and on the downtown campus of McGill and – what many of us here today feel is his greatest achievement – by building Macdonald College."

Stephen Olive, Registrar and former Chairman and long-time member of the Founder's Day Committee, received a gift for his

past efforts and presented the Gold Key recipients with their pins and certificates.

Wendy Mesley, the anchor for the two-hour news and current affairs program "This Day" on CBC TV's Newsworld channel, was the guest speaker. She gave a lively and often amusing account of the seven years she spent in Montreal and Quebec City as a reporter, mostly during the time René Lévesque was Premier of the province. Now based in Toronto she is still following the political situation. "By day I go to the office and work for Newsworld in Toronto and on weekends I go to Constitutional conferences," she said. She gave a clear picture of the years of political dialogue and debate and how it must be kept



Dean Buckland and Wendy Mesley cut the birthday cake.

in perspective by the news media when there are other issues of national importance and concern.

"There are other priorities for people," she pointed out. "There's the economy. People feel that too much energy and time have been expended on the constitution. They want politicians to either drop the topic and let the chips fall where they may or they want it resolved and quickly. As journalists we can't ignore the constitutional story. We can't pretend that the prime minister didn't make a big speech, or that there wasn't a conference in Montreal, but we have to keep it in perspective. That is hard because there are many different perspectives."

At one point when she was filing stories for the National, Wendy Mesley said, "I realized that I could no longer file a story on the premise that it is a good thing for the country to stay together because that would be biased. Not all Canadians and certainly not all Quebecers want Quebec to stay in Canada any more. That was quite a realization."

After her reflections of the years covering the constitution and other stories, Wendy Mesley answered questions from the floor in both French and English and continued her informal discussions with students and staff during lunch.



Gold Key recipients, front row, l to r, Kathy McCormick, Jennifer Morris, Norman Zemanchik, Wendy Mesley, guest speaker, Jane Thompson, Stephen LeBlanc, Dr. David Bird, Chairman of Founder's Day Committee, Stephen Olive, Registrar. Back row: Rhonda MacDougall, Treena Delormier, Mickey Hauser, Dr. Roger Buckland, Dean and Vice-Principal (Macdonald Campus), Patrick Asch, and Colin D'Silva.

together again in the ballroom to enjoy a semi-formal dance with a live band.

That morning, the Chairman of the Founder's Day Committee, Dr. David Bird, welcomed all present, particularly the special guests for the occasion, the senior science students from Macdonald High School. "We hope that they will some day sit in this audience as undergraduate students," he said.

Dr. R.B. Buckland, Dean and Vice-Principal, expressed the regrets of Mrs. David M. Stewart, who was unable to be present for the occasion but sent her best wishes. Mrs. Stewart was in Italy helping to prepare an exhibition entitled "Rome – 1,000 Years of

Beyond These Gates

Class of '51, Victoria Reunion

by Bill Spriggs
Reunion Chairman

Our 40th reunion in Victoria, June 25-29, 1991, was successful and truly memorable with a total of 72 enjoying the festivities. There were 34 from the Class of '51, Agr and HEc; 1 from Teachers '51; 1 from Class of '49; 3 from Class of '50; 7 from Class of '52; 1 from Class of '54; 2 non graduates, and 23 spouses. We were pleased to see three people in particular because they are classmates for whom this reunion was a first since 1951. They were: Barb (Field) Rempel, Anna (Brown) Roberts, and Helen McArthur. Anna's comment afterwards summed up the feelings that others may have had before attending a first reunion. She wrote "After the initial shock of seeing how everyone's looks had changed over 40 years, I found that personalities were just the same. I had expected to meet a bunch of strangers but instead it was a group of warm friends who were at the same stage of life as I."

I would like to acknowledge those people who were so helpful in making our reunion a success. First I must give credit to my wife Cicely who was just as enthusiastic about plans as I was. As were her daughter and son-in-law Su and Don Cameron, and my daughter Alison and her boyfriend Stephen Lush. John and June Baumbrough though 500 kilometers away in Vernon were part of the planning team along with Barb and David Rempel and Una and Adair Stewart (Agr'52). John brought the fruit juices, apples, and goodies from the Okanagan and was the emcee at the final dinner. Barbara and David Rempel organized an excellent bus stop reception, and Adair Stewart not only printed the name tags but along with Don Cameron prepared the delicious barbecued salmon and ham that was served at our home. Alison met the new arrivals at the University of Victoria, and Stephen helped design and set up the contrivance for instant shelter in the event of rain and also procured the six salmon that we barbecued. George Hobson once again added the finishing touch to it all by bringing his one-man band to provide us with the music we enjoyed so much.

Many had already met in the university residence but it was the barbecue on Tuesday at our home that was the starter which set the pace for reunion camaraderie. Many had arrived wearing Tilley hats or "look like Tilleys" for the much heralded "Tilley Hat Contest." The variety of adornments to the Tilleys was terrific but it was Pat Brookbank, a challenger from the Class of '50, who swept aside the competition. Our classmates Ken Brown and Harry Fee came in second and third. Jean Fitzsimmons was unique for wearing the only yellow Class of '51 sweater. George Hobson with the piano keyboard accompanied by Harold Blenkhorn (former "Melody Macs") played some fine music that was great to hear and sing to.

On Wednesday tour buses took us on a drive through the city. Just before our evening cruise boat departed, Geof Noble came with a surprise guest, Fern Dilabio (Agr'54) who flew in from California. Catered food was provided and George Hobson set up his keyboard and played for us. An open upper deck allowed for a marvelous view of Victoria's harbour.

Thursday's trip was to the small historic sawmill town of Chemainus. Our "coffee stop" was at Barb and David Rempel's home near Cobble Hill. It was a perfect setting and the food they had prepared was delicious. The second pause was at a logging museum near Duncan where we had a steam train ride along a section of an old logging railway, plus a walk through a patch of old growth forest.

At Chemainus we were taken on tours by John Baumbrough's sister and brother-in-law, Edna and Allan Brown. Edna took some on a walking tour through the renovated part of the old sawmill town with its famous mural paintings by well known artists. Allan arranged a tour for the rest of us through the new hi-tech sawmill. The final stop was at the little village of Cowichan Bay. We looked around the community and the boat-building museum

before gathering at the "Inn at the Water" for a delicious buffet dinner. The highlight of the meal was provided by Harold Blenkhorn who recited "The Cremation of Sam McGee" in recognition of Robert Service who had once lived in Cowichan Bay.

On Friday a visit to Butchart Gardens was organized, and the reunion finale was a dinner at the University of Victoria Faculty Club where George Hobson again played for us. There was a fair amount of reminiscing of our years at Mac, and it was Ken Walsh's recollections of doctoring the wine-making efforts of his classmates that first come to mind. The stories were many, varied, and fun to hear. There was also an award for the classmate who came the farthest, which we had felt might be taken by Joe Bryson from South Australia. We were sorry to hear that a heart attack was to prevent Joe and Rosemary from attending and hope that Joe is well recovered by now. The award was won jointly by four Haligonians: Bill and Lorna Ritchie and Mary and Ewart Blanchard. The finishing touch for the evening was the announcement that Diane Deputy had volunteered to host the next reunion at Waynesboro, Virginia, in 1993.

I feel that much of the cohesion of our class has been due to the devoted letter-writing of our Secretary Bill Ritchie. He has maintained communication with us all.

Saturday was departure day for most and for Cicely and myself there was the gratitude that so many came to Victoria in such numbers and with such a marvelous spirit. The ginko tree that we received is flourishing and will always remind us of those exciting days in June of 1991.

Photo opposite: A highlight of the Reunion was a barbecue at the home of Bill and Cicely Spriggs.



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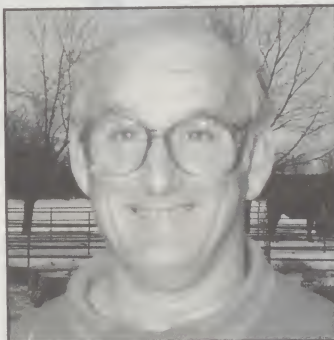
by Lynne Williamson (Muirhead), Dip '76



This century-old barn has been completely renovated and houses the smaller animals on the farm.

Not just an ordinary "working farm," this scenic 105-acre parcel of land northwest of Whitby, Ontario, is literally the pride and joy of its founder, Alexander (Sandy) Mitchell. The project, begun in 1984, is designed to offer a serene environment where physically and mentally challenged visitors can experience agriculture first hand.

Sandy was a Diploma student at Macdonald from 1974 to 1976. His experiences at Mac intensified his desire to become part of the agricultural community and to live his life in the outdoors. The two years in the Dip course were difficult ones for him. Not only was he a mature student and new to Quebec, but the physical challenges of cerebral palsy added to his problems. With all of this, however, he made many friends and involved himself in the life of the campus and the farm. Unfortunately, personal and family distractions prevented his working to full capacity and completing the requirements for a Diploma.



Alexander (Sandy) Mitchell at Wind Reach Farm near Whitby.

help others. Although people often confused his spasticity and laboured speech with the symptoms of the others, he intuited the potential of the rural setting to enrich all their lives. After leaving to continue his education in the States, he donated 90 per cent of the funds needed to open a community centre at "Camp Hill." Sandy then married and had a son. But his failure to complete a university degree and the break-up of his marriage left him with a sense of depression.

After his time at Macdonald, Sandy returned to permanent residence in Bermuda. It was here that he met Maria – now his sec-

Sandy was born in Scotland, the fourth child and only son. The family moved to Bermuda when he was three, and he attended a special school in the United States until his parents separated. He returned to Scotland with his mother at age 13. It was there that the teenager first experienced farm life. At a Scottish farm project for victims of Down Syndrome, he realized his capacity to

ond wife. With her love and support, he began to gain new self-confidence, and to plan his dream of the farm he longed for. With his new family (Maria has four daughters) and teenage son as frequent visitors, Sandy's new-found happiness extended to helping the Lions' Club with the mentally handicapped. This work led to his winning "Lion of the Year" several times and the highest award given by the Hamilton Bermuda Lions' Club in 1991.

In 1984 Sandy purchased the property known as Wind Reach Farm and began to develop it to fit the needs of its special clients. A century-old barn was completely restored to original condition, including the pegged floors. The lower level houses the smaller animals: Nubian goats, rabbits, chickens, sheep, and Victor, the Vietnamese pot-bellied pig who is the star of the show. The pens are designed to allow wheelchair visitors to touch the animals. Outside, Patsy the donkey and her daughter Bonnie are among the creatures to be seen and petted. Horses and six registered Herefords are now in the fields, and Sandy plans to build up the herd to 15 with the use of artificial insemination.

The Visitor Centre provides not only indoor facilities for lunching, learning, and resting, but also a covered deck for picnicking on rainy days. Inside, small cages house guinea pigs and Farrah the ferret. Outside, a petting zoo welcomes guests. For the more adventurous, trails and wheelchair-friendly boardwalks provide access to the pond, fruit and apple orchards, marsh, fields, and forest. The fruit varieties have been selected to allow picking by the seated.

The planting and ploughing of the cereal crops are handled by Sandy himself, although the grain is harvested by custom work at present. His involvement with the farm reaches every aspect – from hiring personnel to care of the animals. One of his favourite "hands-on" tasks is driving the

(Continued on Page 22)

Innovative Research In Nova Scotia

On a recent visit to the Nova Scotia Agricultural College in Truro, Linda Montreuil, Liaison Officer for Macdonald, talked with two Macdonald graduates in Agricultural Engineering, John Adsett, BSc (AgrEng)'69, and Kevin Sibley, BSc(AgrEng)'82, MSc(AgrEng)'84. John was originally from Moncton, N.B., and Kevin from Truro, N.S. Each is combining an important teaching position with exciting and innovative research. We thank Linda for the interviews and John and Kevin for allowing us a brief glimpse of their careers since leaving Macdonald.

John Adsett

Saving the farmer some money and making an environmental impact are two of the goals behind John Adsett's research,

which is primarily in electronics and control systems for farm machinery. He is working on more accurate control of fertilizer spreaders by measuring the nitrate content of the soil on the go and adjusting the fertilizer spreader accordingly.

"The old concept of let's get enough fertilizer on the land to make sure that the plant will grow and give an excellent yield has to change. We now have to be concerned with where the nitrogen is going. Is it getting into groundwater supplies, for instance? As well, one of the farmer's biggest operating expenses is fertilizer. If we can more carefully control what is put on, we may save the farmer some money that way. At the same time, if the right amount of fertilizer is applied, perhaps we can obtain a more uniform crop maturity."

John Adsett is working with what he calls a pre-prototype nitrate monitoring system. He took time off from teaching to obtain a PhD, during which time he began to develop the nitrate monitoring system. John is teaching courses related to agricultural mechanization, and his interest is to contin-

ue this monitoring system work, to build it up, and to get some students working on it with him.

Since leaving Macdonald in '69, John has enjoyed various jobs. He sold farm machinery for Massey Ferguson, worked for the New Brunswick Department of Agriculture as an extension engineer, farmed for a few years, worked in a mechanical engineering consulting firm, obtained a MSc in Mechanical Engineering in heat transfer at the University of New Brunswick, and started his present position at NSAC with the understanding that he would take time to do his PhD. He went to Saskatchewan in 1988 and graduated with his PhD in May 1991.

John feels his degree from Macdonald definitely helped him in further studies and in the positions he has held. "I certainly had the skills needed to pick up new material, and all around I would say my training at Mac was good," he told Linda. "It was also a very good social experience. I made a lot of friends there that I still have and have good memories of my time at Mac."



Kevin Sibley

comes by his interest naturally.

"My father has been the Nova Scotia Department of Agriculture's blueberry specialist for 27 years," Kevin told Linda. "I've been in the blueberry business since I was a young boy and in it professionally since 1976. I've been involved with all aspects of production, handling, and processing."

Kevin has only been at NSAC a little over two years and says he's just getting going on his favourite research project: Improv-

ing the picking performance of the Bragg lowbush blueberry harvester through work on a head speed control system.

"The harvester has been commercially available since 1984 but little work has been done to improve it," Kevin explained. "Early studies showed that the machine was only picking about 75 to 80 per cent of the crop. A 1989 study done in Maine showed that it only picked about 50 per cent. In 1990 I was able to get the harvester to pick up to 92 per cent of the crop by using the proper head speed ground speed ratio. In 1991 I developed an electro-hydraulic head speed control system which raised picking effectiveness up to 95 per cent. I think the system can have a significant impact on the industry."

Kevin said that the results of his work could save the blueberry growers millions of dollars annually. "In 1991 Nova Scotia alone produced 28 million pounds of which about 60 per cent were picked mechanically. That's 16.8 million pounds at a market value of 50 cents a pound at the farmgate. My system improves picking performance by about 12 per cent which would increase revenues \$1,008,000 in the first year alone. Over the entire industry the value approaches \$3.5 million annually." That's not a bad return for a small \$17,000 research grant!

Kevin is also working with a colleague characterizing blueberry size ranges with maturity in order to develop machinery that will more effectively clean and separate the berries. He is also working with the Biology Department on irrigation scheduling for blueberries, on the effect of irrigation on increased fruit yields, and on honeybee pollination experiments.

Not only did Kevin Sibley grow up in the blueberry business but he also acquired excellent experience during his Masters studies at Macdonald and immediately after while working for Cherryfield Foods in Maine, a subsidiary of Oxford Frozen

Foods in Nova Scotia, the world's largest producer and processor of lowbush blueberries.

"I was the farm supervisor and had the responsibility for the operation and staff of 15 people for the 5,000-acre enterprise. I scheduled work and cultural practices such as burning and mowing the plants, fertilizing, spraying, pollination, insect and disease control, land clearing, irrigation and erosion control. They also had freezing and canning plants, and I was a trainee for operational management there as well."

Returning to Nova Scotia in 1986, Kevin worked for the Nova Scotia Research Foundation Corporation in Dartmouth, specifically for the Atlantic Farm Mechanization Institute, where he was a Project Engineer. Most of his projects were related to blueberries. He also evaluated development proposals for Enterprise Cape Breton and the Atlantic Canada Opportunities Agency – a federal agency set up to pro-

mote business activities in the Atlantic region.

Back in his home town, Truro, since 1989, Kevin is enjoying life as an Assistant Professor in the Engineering Department. "My teaching duties are related to agricultural machinery. I deal mostly with technical level courses but also teach one degree course in agricultural mechanization."

He told Linda that the skills he learned at Macdonald have stood him in good stead. "I learned to characterize the problem, determine what information is needed to solve it, how to get that information, and how to use it. As well, I learned to communicate that information with written reports and oral presentations. The program at Macdonald prepared me quite well in these areas."

Kevin told an interesting story that highlighted his problem-solving techniques. "One of my first tasks in Maine was to

design a shower system with hot and cold running water, but without a power source, which means no pump and no conventional heating system. The showers were for the migrant workers who live in little camp communities out on the blueberry barrens during harvest season. I dug out my books and designed a gravity-fed shower system with a solar heated reservoir system at the top of a hill. I contracted the construction out to a local carpenter and plumber. The plumber didn't think it was going to work! What I had done was adapt sprinkler irrigation formulas for the shower heads. It worked like a charm!"

That type of dedication and innovation should continue to stand Kevin in good stead as he combines them with his vast hands-on and research knowledge of lowbush blueberries. Certainly he has the motivation: "It's my pet interest," he said. "I hope I can do some good for the industry."

Continued from Page 20

tractor. This and horseback riding give him his only chance to "be on his own and just think."

Wind Reach caters to the physically and mentally challenged who have a desire to "rest the mind and nourish the spirit" in a rural atmosphere. Brochures go out to organizations in southern Ontario and 2,500 visitors, aged five to 102, were entertained in the summer and fall of 1991.

Plans for the future include a riding program for the disabled. Since Sandy finds that riding his own quarter-horse "Willie", seems to improve his balance, he is determined to provide the same opportunity to others. Since C.A.R.D., the Community Association for Riding for the Disabled, has no location in the area, the farm would

be the perfect site for such a program. Horseback riding has long been recognized as a therapeutic treatment with many physical, psychological, and social benefits.

The success of the Wind Reach Farm project and the satisfaction it has given Sandy when he sees the faces of the clients radiate their joy in the surroundings has spurred him to even more involvement. A new facility is in the planning stages in Bermuda, his long-time home.

Sandy Mitchell has learned that great things are accomplished by throwing oneself into a project, rather than merely throwing money at it. His hectic schedule includes commuting between Ontario and Bermuda to be with Maria, his four step-daughters and five grandchildren and keeping up with his son Vincent, 21, now attending university in Boston.

Said Sandy at the end of our chat, "I have always wanted to be involved, but I never thought it would consume 12 hours a day, six days a week." But if his healthy, beaming face is any indication, this is a man who is fulfilling his dream by helping others. "It is my lifelong desire to be close to the land – and provide a similar opportunity to others."

The farm is open to disabled and able visitors from May to October. For Reservations, contact:
Wind Reach Farm
R.R. 1
Ashburn, Ont. L0B 1A0
(416) 619-0256

Enjoying Each Step Up the Ladder

by Hazel M. Clarke



"It always feels good to come back to Macdonald, and I feel very honoured to be representing our president at this important meeting," Rhonda Beauregard, BSc(Agr) '79, said last February at the annual meeting of the Advisory Board to the Faculty of Agricultural and Environmental Sciences. Rhonda was filling in for Board member Jean-Marc Paquet, the President of l'Ordre des agronomes du Québec, who was unable to attend the one-day meeting. Rhonda is the Assistant General Manager and Communications Manager for l'Ordre, a position she says she loves.

Rhonda was as fresh and as effervescent at the end of the day's session as she was when she arrived at Macdonald hours earlier. Her enthusiasm for life is refreshing and as you learn about her career steps since leaving Mac, you feel that not only has she been building up a successful list of accomplishments, but those she has worked with must have also benefitted considerably from her contributions and her "joie de vie."

Rhonda majored in Environmental Biology while at Macdonald. "Although I didn't grow up on a farm, my father comes from a

family of farmers in the Eastern Townships," Rhonda said, "and I think that love of agriculture has rubbed off on me. Being interested in Biology while at CEGEP, my thoughts turned to Macdonald for I considered agriculture as applied ecology. Since graduating I have had the opportunity to see several sides of the agricultural scene."

After some part-time work at Macdonald, Rhonda began her first full time job with Monsanto as a Marketing Representative. "I was there for over four years and got a lot of good experience in marketing and communications. I travelled in Quebec, the Maritimes, and eastern Ontario. When I decided to leave that position it was because I was becoming too specialized in one area: herbicides. I felt I was too young to specialize and decided to broaden my base. My next job was with the Régie des Assurances Agricoles du Québec. It was good first-hand experience dealing directly with farmers. I worked with crops, hogs, beef cattle, and some lamb production. I then worked for their communications department doing video productions, training courses, and so on."

Closing the Loop

Rhonda learned more about cereal production and dairy animals from her position in the agricultural sector of the Quebec Ministry of Energy and Resources. The next step was to Ralston Purina as Corporate Communications Manager. "I really got to know about animal nutrition there. I worked in communications, did some advertising, wrote articles and reports, and prepared technical documents for the field people. When I got to Ralston Purina, I felt I was closing the loop. I felt I had gone the full circle in the private and public sector."

Rhonda said that her academic training, her varied experiences, and the different jobs have helped tremendously in her present position. "Five years ago I would not have been able to do the work I do now with the deadlines we have," Rhonda pointed out;

with technical know-how, syntheses, networking, and creativity being crucial in her position.

She is responsible for the various publications at l'Ordre des agronomes du Québec. Her work is varied, interesting, challenging and, as she said, she loves it. "We have a monthly newsletter *Agro Nouvelles* and *AGRICULTURE*, a semi-scientific quarterly magazine designed specifically for the agronomes. I also act as the secretary and sometimes the animator of different committees such as the new 'sustainable development of agriculture' group which is made up of six sectors including: Food Toxicology and Safety, Rural Development, Animal Production and Health, Alternative Methods of Agriculture, Environment, and Integrated Pest Management. I initiate some dossiers and follow up on others.

"We sent a 62-page brief to the Bélanger Commission, and I found that an experience I will never forget. We wanted to show the commissioners the importance of Quebec agriculture from an economical standpoint and to promote the development of agriculture in this province."

Rhonda pointed out that graduating students and older graduates working in Quebec who qualify and would like to network and to belong to a professional organization should seriously consider belonging to l'Ordre des agronomes du Québec. She said that members can certainly play an important role in decisions that are being made. She works closely with Chantal Paul, Extension Officer for Macdonald and President of the Ste-Anne's branch of l'Ordre, and a representative for the organization has an office on the campus.

"There are still a lot of things I want to do at l'Ordre," Rhonda said. "I have more goals to realize."

What more could an organization ask for than a bright, articulate young person who says, "I see challenges and I'm motivated."

Focus Environment

Women Prepare for Earth Summit

by Hazel M. Clarke



Treena Delormier receiving her Gold Key pin from Stephen Olive, Registrar, at this year's Founder's Day ceremonies.

Some 1,000 women met in Miami, Florida, last November 4-8, to attend the Global Assembly of Women and the Environment. Among those in attendance as one of 50 New Generation Leaders was Treena Delormier, a student in the School of Dietetics and Human Nutrition. The Assembly, which was sponsored by the United Nations in preparation for the Earth Summit to be held in Brazil this year, attracted women from all over the world. Treena, who was the only New Generation Leader from Quebec, found it a moving and memorable experience.

The Assembly focussed on four major areas: Water, Waste, Energy, and Environmentally Friendly Systems. The world was split into five areas and each was then split into the four categories with women from around the world discussing their successes and their failures, their satisfactions and their concerns. The New Generation Leaders were there as observers and Treena sat in on as many different area sessions as possible.

"I was extremely impressed by many of the Success Stories that were presented to us," Treena said. "These women have done some incredible things, often with little money and few resources."

In Brazil many plant species with medicinal value were close to extinction due to habitat destruction, and the indigenous knowledge of the use of these plants was

being lost. When a group of women agriculturists visited women in the communities to identify their most serious problem, it was found to be health. They found that women used medicinal plants to treat family health problems 70 per cent of the time. The work group organized a medicinal health recipe contest with the result that the use of many local plants was discovered. The end result is that over 110 groups or a total of 2,770 women have participated in monthly meetings and thus gained access to low-cost health remedies. As well there is an increased awareness of the importance of flora preservation. Women are being trained to identify and cultivate those species threatened with extinction.

A garden-nutrition project was initiated in KaNgwane, South Africa. A team of women started nutrition lessons, food demonstrations, and training in trench garden techniques among the local women. They used organic kitchen waste, grass cuttings and crushed glass to produce chemical-free vegetables at low cost. To sum up the project, it improved nutrition by providing cheap vegetables, and it reduced household waste by recycling. It also saved money formerly used to purchase vegetables, if they were available.

A woman from Houston, Texas, told of the more than 400,000 hungry people in her city, many of whom are women and children. Their Success Story: more than 33 community gardens have been planted and more are in the planning stages or under construction. This project has resulted in an outstanding show of public and private support in the community and is considered a wonderful morale booster.

Katsi Cook told about the Akwesasne Mother's Milk project which was established in New York State to assess human health effects from exposure to industrial pollutants, with focus on nursing mothers and children. This project is forcing serious re-evaluation, remediation and compensation for environmental damage and envi-

ronmental victims. The project has raised community awareness of the link between increased environmental degradation and human health.

"I came away inspired by their work and filled with a sense of also wanting to do something," Treena said. The gardening projects with their emphasis on nutrition and the plight of the natives both in Canada and the United States were, for her, of particular interest. Treena is from Kahnawake, a Mohawk Indian Reserve on the South Shore.

"Dr. Kuhnlein, Director of the School of Dietetics and Human Nutrition, told us about food security in one of her courses. She said that with most of us buying our food in stores, we have become detached from how people once got their food. Life used to centre around gathering food. It is as much a cultural thing as it is a nutritional thing," Treena said. "My grandfather and my mother used to garden, and I can't wait for this summer as I would like to start a garden. I'm also wondering about trying to get some of the people in Kahnawake involved in a community project."

The New Generation Leaders were asked to prepare a statement, expressing their hopes for the future. The two-page statement "Empowerment and Change: Youth Commitment to Action," includes the following:

"Despite the key roles women play in sustaining family and community life, women's contributions remain largely unrecognized, their knowledge ignored, their capabilities untapped. We demand that women be active participants in every sphere which relates to sustainable development. We pledge ourselves as young women and sisters to strive for this goal.

"In formulating our document in the capacity of New Generation Leaders attending the Global Assembly on Women and the Environment, we moved from a position of turmoil and worked through a process of

communication involving tears, fears and anger to a point of mutual, cross-cultural understanding. Through this, we gained a deeper understanding and appreciation for ourselves and each other. We emerged with a sense of common joy, confidence, respect, and strength. We recommend youth participation in fora such as these to achieve this important goal. For change to occur, partnerships must be formed between races, cultures, religions, classes, languages, and genders.

"As young women dedicated to the preservation of the integrity of the earth's ecology and the advancement of the role of women in environmental management, we pledge to apply this knowledge gained from the Success Stories and dialogue of this Assembly in our personal and professional

capacities to facilitate this change. They have demonstrated the validity of the advice that to act locally is to think globally...

"Our specific roles as participants in sustainable development will vary depending on where we are. We have learned, however, that leaders are ordinary women with extraordinary perceptions of needs and determination for change..."

"For native people the environment – the earth – is so much a part of our lifestyle and culture, and the farther you go north, the more this becomes true," Treena said.

"As part of a summer job, I was in Chisassibi in northern Quebec to observe a project where the mercury levels in people are

being monitored by taking hair samples. I kept hearing people talking about what it was like 'before' the James Bay project. The weather changes faster now than it did 'before.' We used to fish 'before'. Fish was such an important part of their diet, but they are now afraid to eat it.

When Treena graduates she will be one of only three native dietitians in Canada. She hopes to return to Kahnawake to practice community nutrition. "I feel there is a need," she explained, "and having a native dietitian for native people is, I think, important. They would have someone they could relate to. I learned in one of Dr. Kuhnlein's courses you have to really study the people you are trying to help. You don't just go in and change things."

(Continued on page 34)

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Diploma Corner

Three Days to Remember, Part II

by Serge Lussier
Assistant Director
Diploma in Agriculture Program

(In Part I, published in the February Journal, Serge Lussier discussed the start of the three-day Ontario trip that the third year Diploma students took last September. They visited the farms of Jim Verkaik, Claus Zander, Carl and Susie Cossack, and the Hack family farm in Kincardine.)



Here is a man who needs little introduction: Mr. Lawrence Andres of Anbros Farms.

We next travelled the few kilometers to Anbros farms in Tiverton. Here, we met a man who is very well known in organic agriculture circles, Mr. Lawrence Andres. The Anbros dairy herd boasts one of the highest productions in Ontario; it currently hovers between 9,500 and 10,000 kg per cow per year. It is no great surprise that Mr. Andres is constantly being asked to speak to farmers' groups all over eastern Canada.

The success of this farm rests on attention to details and on the breeding and raising of large, healthy cows. All the animals on the farm are home-raised. To reduce the chance of bringing in diseases, no outside animals are purchased. Calves are fed milk for a longer period than is customary, and this leads to bigger, stronger animals, according to Mr. Andres.

To further increase the size of the cows, heifers are bred late as first calving is set for around 30 months of age. Cows are fed hay (no silage) and a concentrate made of home-grown mixed grains, minerals, and kelp meal. This last ingredient contains micronutrients and other factors that help the animals. The cows are not pushed hard,

and this is reflected in the low incidence of disease. In order to further reduce disease problems, the barns are kept scrupulously clean and bedding is heaped high under the animals.

Mr. Andres is also very careful when it comes to manure management. All solid manure is composted and the runoff from the concrete barnyard and manure handling areas is pumped into a storage tank. This care is necessary to prevent nutrient losses, since the farm has not purchased fertilizer of any sort for the last 14 years.

Despite its certified organic status, this farm ships its milk through the regular marketing channels. Mr. Andres would very much like to see a separate pool to cater to those people looking specifically for this type of milk. This has not happened yet, however.

Even after a short visit, the Anbros farm becomes a living example that success in the dairy business is not based on a single model, but can be achieved in new and innovative ways. We took our leave of the Andres family late in the afternoon and headed towards Welland and the Niagara peninsula.

Our next visit was to the Niagara Park Commission's School of Horticulture. This small school has a reputation for graduating competent, versatile horticulturists.

At the entrance to the beautiful grounds, we met the Director, Mr. Melvin Dell, and a student, Joe Viapiano, Dip '89. Following the presentation of a short video, we went out for a guided tour. A downpour tried to dampen our spirits, but we were still able to enjoy the beauty of the numerous flower beds and landscaped areas, including an extensive collection of rose varieties.

The School of Horticulture, despite its 18 ha of manicured grounds, accepts only 12 students per year. This allows a personalized approach to teaching and the inclusion

of long periods of hands-on training. In fact, the students are responsible for the complete maintenance and upgrading of the school grounds under the supervision of their teachers. This includes summer work, as the students stay at the school year-round. According to the students we talked with, finding work after graduation is easier than getting accepted by the school in the first place. Many applicants vie for those 12 admissions each year.

A short drive along the Niagara River brought us to Niagara-on-the-Lake and a much awaited visit to Inniskillin Wines. Maria Moessner first treated us to a lunch of sandwiches and grape juice (not fermented), before taking us on a tour of the vineyard and winery. Inniskillen produces many types of wines and this requires the use of a number of different varieties of grapes. All belong to the highly touted *Vitis vinifera* species. One variety is even used to make an Icewine. It is harvested and pressed during a period of cold weather, as the grapes must remain frozen at all times, especially during the pressing operation. This ensures that the sugar content of the juice is very high, producing a sweet fruity wine that is a sensation on the market.

Inniskillin buys grapes from some neighbouring growers, as well as using its own. The best of the vineyards get special treatment, the wine being sold as vineyard reserves. After the visit, we were able to sample two of the wines. Both were good. Inniskillin is a young enterprise, but its success indicates to all of us what can be done with good products and marketing savvy.

A few kilometers away sits the orchard and vineyard of Mr. Earl Muir. He has been on this farm all his life and is well versed in all the changes that have occurred in the area. Real estate development pressure is getting ever worse, to the point where local fruit farmers recently held a day of protest by putting up mock "For Sale" signs that specified that developers with lots of money were most welcome.

Mr. Muir indicated that the plight of peach growers is made more difficult by increasing competition from the United States and abroad. Grape growers have seen their acreage drop because of slack demand for the port made from old labrusca type



Diploma students Catherine Hudon and Michel Massuard on the Buis farm in Niagara-on-the-Lake

grapes. Some, but not all, have replanted to vinifera types.

Mr. Muir also suffers from the same labour blues that plague Jim Verkaik. Workers are brought in from the Caribbean, and they stay on the farm for the whole summer. They had just left when we visited. This is earlier than usual since the warm dry 1991 season ripened the fruit two to three weeks early.

On the Muir farm the peaches are packed in baskets and immediately shipped to a cooperative marketing organization. Because of the real estate and labour situation, Mr. Muir has not invested heavily in the farm in recent years. He prefers to stay with a well-run, smaller scale operation that will maintain at least a modest profitability, even in tough times.

The farm of the Buis family is also situated in Niagara-on-the-Lake, and it grows the same crops as the Muir farm with some cherries added in for good measure. It is, however, a larger, more capital intensive operation with two packing and storage houses and more machinery.

At the time of our visit, the packing line was being cleaned and repaired and the storage areas were empty, but we were still able to get a good idea of the scope of the operation. Here again, the peaches are destined for the fresh market and are packed in the familiar baskets that we see in grocery stores. After a general discussion, we were shown a huge contraption that is used to pick cherries. It is made up of a tree shaker and a series of inclined canvas tables that gather the fruit that fall during the shaking process. This was not the end of the machinery demonstration, however. We were fortunate that a grape harvester was making its way into one of the Buis's vineyards. The machine is owned by a local grape grower who does custom work for his neighbours to help defray the \$150,000 cost of the harvester.

The harvesting process itself is simple. Fibreglass fingers beat the plants and gently shake the grapes off their bunches, to

fall on vibrating collector plates. The grapes are collected in a bin and dumped into a wagon at the end of the field. The grape plants are trained on horizontal wires to facilitate the operation.

The owner of the harvester and the Buis brothers were friendly and ready to answer questions. Some of our dairy students, who usually have limited interest in horticultural matters, were even invited to board the harvester. They could be seen proudly displaying a great smile as the machine inched its way along the field. Who says that travelling does not broaden your horizons?

After an interesting discussion on politics and sports – not necessarily in that order of importance – we embarked for the trip home. The bus was remarkably quiet as students and staff reflected on the learning experience of three days of travel, or even pondered the meaning of life itself. Some slept.

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The Quebec Women's Institutes

Congratulations and Welcome

On behalf of the members of the Quebec Women's Institutes, I wish to offer our congratulations and best wishes to the new branch, Richmond Group 92.

To all our new members, it is my hope that your association with the Women's Institutes will prove beyond expectations. Everyone of us, old and new, has the responsibility to promote our organization.

We sincerely hope that you will enjoy your membership as you work for Home and Country.

Florence Ellerton
QWI President

Congratulations

My congratulations to our newly formed branch Richmond Group 92. I am looking forward to being associated with you and hope that you will feel free to call on me at anytime. I hope to be able to help you in your efforts to become an active part of our Quebec Women's Institutes.

Margaret Eastman
President, Richmond County

Richmond Group 92

The Richmond Group 92 would like to thank everyone who welcomed us into the Women's Institutes. Our thanks go out to our Provincial President Florence Ellerton for the nice cards sent to us. We want to thank our Past Presidents Grace Taylor and Laurie Walker for all their support and guidance in helping us to get off the ground. We also want to thank Joyce Gilchrist for helping us before we became an official group.

On Wednesday, January 14, Laurie and Grace braved an extremely cold January night to swear in our officers at the first official meeting of Richmond Group 92.



Richmond Group 92, back row, l to r, Valerie Hodge, Ruth Walden, Carol Jackson, Gwyneth Grant, and Lois Enright. Front: Uta Witzig and Mary Snabb. Missing from photo: Francine Beaulieu, Cindy Jackson, Martha Shampoe, and Cecile Stacey.

All of us are friends, and we wanted to make a fresh start and get together to share our different opinions and make some good changes in our area. We are a mixture of city and farm women as well as a mixture of different cultures.

Our President is Gwyneth Grant. This delightful lass hails from Herefordshire, England, and is now an owner-operator of a beef and sheep farm in Ulverton. Gwyneth's mother was Past-President of a group in Herefordshire. Gwyneth is also our Citizenship and Legislation Convener.

Adele Charlebois is our 1st Vice and our International Affairs Convener. This soft spoken operator works for Bell Canada and comes from Ottawa. She now lives in the Melbourne valley. Lois Enright is our 2nd Vice and Home Economics and Health Convener. This inquisitive lady owns and operates a beef, sheep, and goat farm out of Richmond. Lois's grandmother was a member of the Fulford WI. Uta Witzig, our Secretary-Treasurer, was born in Germany and landed on Route 116 where she owns and operates a Tea Salon and Antique business.

Mary Snabb, Agriculture and Publicity Convener, comes from the United States

and is part owner of a dairy farm in Richmond. Mary was a member of Cleveland WI. Cindy Jackson, Canadian Industries Convener, is from Montreal and now lives in South Durham and is going to college to become a secretary. Carol Jackson, Sunshine and Buying Convener, also from Montreal and living in South Durham, owns and operates a horse, rabbit, and chicken farm called Empty Pockets.

Valerie Hodge is our Environment Convener. This funny and smiling lady owns and operates a dairy farm in Ulverton. Valerie's mother Grace Taylor has been a member of Spooner Pond WI for 43 years. Ruth Walden is our Safety Convener. This shy and quiet lady comes from Swindon, England, and is now owner and operator of a large sheep ranch in Ulverton. Cecile Stacey is our Education and Cultural Affairs Convener. This spunky lady came from New Brunswick and the Kahnawake Reserve and is part owner of a large beef feedlot - Black Cloud Ranch - in St. Christine. She also works for Bell Canada.

Francine Beaulieu, from Montreal, now lives in Ulverton and is in advertising. Martha Shampoe, who is retired, came from Montreal and New Brunswick and now lives in St. Christine.

Some of our objectives are: to get a recycling project going in our area; to seek more information about areas where "we can make a difference;" and to help people that are in real need with food, clothing, and so on. We are looking forward to working with the other WI branches, are excited about our group and look forward to our monthly meetings.

Mary Snabb
Publicity Convener



Kathleen Rehel
QWI President-Elect

I was born in the small village of Bridgeville, Quebec, the oldest of eight plus two adopted children. Our grandparents lived with us. I got married at 18 and have been happily married for nearly 35 years. We have four children: two boys and two girls. Three are married, and my youngest is 18. We have four grandchildren: two boys and two girls.

We lived in Murdochville, a mining town, from 1956 to 1988. I joined the QWI 23 years ago and held many positions – conveners, president, vice president, and treasurer – in the 19 years I was in the Murdochville Branch. At the county level, I was publicity convener, vice-president, and president. I was also active in other organizations while we lived there and have kept up many of these activities since moving.

We moved our house some 150 kilometres from Murdochville to Bridgeville in 1989. I joined the Barachois Branch and am in my third year as President. I also joined other organizations. I have worked in a boutique in Percé, as a waitress, child nurse, and as a substitute teacher. I owned my own boutique for a few years, did catering, cake decorating, and have a diploma in sewing haute couture. I have taught sewing and embroidery at the cultural centre. I make my children's and my own clothes, including clothes for such special occasions as weddings.

I enjoy being President-Elect. I know I have a lot to learn, and I thank everyone for their support.

Sheila Needham
QWI Vice President

Having been a member of South Bolton WI for 20 years, I am very pleased to have been given the opportunity to serve as your Provincial Safety Convener and as Vice President.

I had my small beginnings as Sheila Wallet in the B.M.P. Hospital in Cowansville on December 29, 1949, and then six years later attended Heroes Memorial (now) or CHS (as we called it) right through to Grade XI and graduation in 1968. I then attended Nancy Taylor's School of Fashion Merchandising, which is now LaSalle College and still provides an excellent training in many career choices. I was hired by Reitman's as a manager trainee and worked at many of their downtown stores as well as in Cote St. Luc and at Queen Mary Road.



Sheila Needham, right, with Betty Needham, left, and Pearle Yates at the Abercorn WI Hall.

My husband-to-be and I were introduced on the bus going back and forth from Montreal! We married in 1972 and have three children, daughters Kara and Trisha, and son Greg. In 1976 my husband Neil and I opened a gas station in South Bolton and three years later we added on and went into the depanneur business as well. The business became a very complex part of our lives and so in March 1991 we sold it and felt that a terrific burden was lifted from our shoulders.

Neil continues to restore antique cars and pocket watches while I work full time at Wallet's in Knowlton with time off for good behaviour to attend WI meetings! My mother-in-law Betty Needham recruited me into the WI, and I recruited my mother

Doris Wallet, and all three of us enjoyed attending the FWIC Convention in Victoria, B.C.

I do have other interests besides WI though. Being on the local town council for the past three years, with a term of four more years to come, keeps me involved in what's happening locally as well as provincially, and I find that I can apply a lot of what I'm learning to WI work and vice versa. All WI branches should try to keep an open channel to the local government, especially when trying to improve recycling, day care centres, libraries, and so on. Other activities I enjoy include being President of the ACW and also Parish treasurer. With a little reading and needlework on the side, who has time for housework?

Hazel Hunter Thomas
Provincial Convener
Canadian Industries



I joined the Lakeshore WI Branch in Baldwin Cartier County in 1987 and have been active in it every since – and learning from every encounter. I have attended five annual conventions as a branch member, and as branch and county Vice-President and President. I have also attended two semi-annual board meetings.

I had the opportunity of representing our President, Florence Ellerton, at two functions: the Quebec Farmers' Association annual meeting and the Scholastic Awards Banquet of McGill's Faculty of Agricultural and Environmental Sciences.

I am enjoying my association with the QWI and feel that I am constantly gaining knowledge of all aspects and objectives of the Institute. One of the delights of this association is meeting with other members from all parts of the province.

As to my personal life, I have two children, both married. The older is my daughter and my best friend who lives in South Carolina.

She has two children – a boy and a girl in their teens – the best, the most wonderful grandchildren in the world! My younger child is a caring and thoughtful boy, married to a terrific girl. They live in Northern Ontario and have no children as yet. In the family department I consider myself very well blessed.

Besides my membership in the QWI, I belong to other organizations in which I am also very active. They include my church's Women's Auxiliary, the Pointe Claire Horticultural Association, a very informative group which calls itself "Tea and Topics," a local senior citizens' social club for which I'm one of the "drivers" as well as being on the hostessing committee, and the Lakeshore Players. This is my 30th year of running and playing in a bi-weekly marathon bridge group of about 32 members that raises money for local and extended charities.

Ethelyn Vautier Provincial Convener of Citizenship & Legislation



When I came from the Eastern Townships to the Gaspé Coast in 1951, Edith Watt, Mrs. Cameron Dow's daughter, asked me to join the Marcell Branch of the WI. Since then, with a short lapse when we moved to the Ottawa area so that our two girls could attend university, I have been active at the branch and county level. Though I have been at provincial board meetings as a representative for the county, this is my first provincial convenership, and I look forward to learning more about citizenship and legislation.

Our four children live outside of Quebec, on Vancouver Island and in England, and I have been able to visit many places of interest. Careerwise, I was a teacher for 20 years, have served on the boards of the CLSC, the Parents' Committee, the community newspaper, SPEC, and I do book

reports for the CBC. Altogether a very busy life. The world-wide work of the WI, however, has always been a major interest.

From the Branches

ARGENTEUIL Arundel Reports were given on local garbage recycling and on poverty among Canadian children. Had a pot luck dinner before the February meeting. Nora Charters gave an account of a trip to Tunisia. **Brownsburg** members gave their annual reports and made up their program for the coming year. **Dalesville Louisa** is to be congratulated with three new members in the new year. Had as guest speaker auctioneer Flora Dumouchel of Ingleside, Ont., talking on her two-week course in a U.S. Auction College. **Frontier** Congratulations to Mrs. Margaret Clark on being presented with a 50-year bar. Had Sybil Plummer speak on Economics and Health. **Grenville** held a discussion on a meeting with Claude Ryan, MNA, Argenteuil, concerning proposed electoral map changes. The branch expects Mr. Ryan to support the campaign to keep Grenville in Argenteuil County. Their "Carnival Brunch" was a real success. The Mayor of Grenville arrived and presented the President with a clock in appreciation of her involvement in WI for the past year. **Upper Lachute East End** A new member was welcomed.

BONAVENTURE Marcell sponsored two students to "Encounter with Canada," held several bake sales, have a pen pal in Alberta. Members donated towards the 1997 celebration of the Adelaide Hoodless Home, and one member visited the ACWW headquarters in London. **Port Daniel** Congratulations to three members who received their Life Memberships: Mrs. Ada Prince, Mrs. Marie-Louise Langlois, and Mrs. Anna Sweetman.

BROME Abercorn holds Jeans and Yard Sale to raise money for their projects. Their hall is used for luncheons, meetings and the local craft show. The branch had a table



At a recent meeting of the York WI, two members were presented with Abbie Pritchard Throws. The recipients were Mrs. Emily Annett, shown above with President Mrs. Bonita Annett, and Mrs. Rena Patterson.

describing their WI and local family histories in photo albums. Austin celebrated 65 years in QWI and were active in the Woolbar's N Gathering program. **Sutton** held meetings at interesting places such as Cecile Carr's Studio, a local artist, and at Schwitzer's Lodge near Mount Sutton.

CHATEAUGUAY-HUNTINGDON Aubrey-Riverfield This branch is very active in environmental activities. They were instrumental in organizing the community recycling program. Door-to-door pick up has been implemented in the parish and town. Public meetings were held and proposals sent to the M.R.C. The president attended a press conference in Valleyfield representing a coalition of environmental groups. Members attended a conference and had a display table at a public meeting with Dr. Paul Connnett. Members also attended the showing of the film *Don't Burn*. They lobbied councils to vote against the incinerator. They conducted a study on waste management at the request of the Mayor of Tres St. Sacrement. The results showed that two thirds of waste can

be kept out of landfill through recycling and composting.

COMPTON Brookbury had several card parties. **Bury**, Books given to three schools – Cookshire, Sawyerville, and Bury – for World Food Day. **Canterbury** donated to Sherbrooke Hospital. **Sawyerville** marked the 100th birthday of the town with Mildred Waldron showing pictures of Sawyerville's past and spoke on its history. In the pre 1900s the town had 54 industries. At March meeting, the emphasis was on things made in Canada. Bring a Canadian-made product and tell about it. A contest was held giving points for how many Canadian-made labels a member had on her clothes, shoes, or in her handbag. Winners were Mrs. Alice Mayhew and Miss Margaret Gaulin.

MEGANTIC Inverness Two letters of appreciation were received by the branch. Education and Cultural Activities Convener L. Robinson, reported that she is doing a review of the health reforms in Quebec. **Kinnear's Mills** Regretfully, the branch has decided to cancel the WI School Fair due to too few entries last year.

MISSISQUOI. This is the 45th anniversary of Fordyce Branch and the 70th of Stanbridge East. Two bursaries were given: one to Annie Chrysler, Bedford, and the Ella Beach Brown Bursary to Alita Boomhower, St. Armand. Congratulations to Mrs. Ruby Sherrer, who received a "Volunteer of the Year" award from the town of Dunham in recognition of her much appreciated work for WI and the community.

MONTCALM Rawdon A successful Valentine Tea Night was held on February 14. Many entertaining items were on the program including a skit "The Minister Came to Call" presented by WI members, and a demonstration "Gone to the Dogs" by Dorothy Budge and Cappy and Pal.

PONTIAC County held its annual Information Seminar in February in Shawville.

Speakers focussed on GATT negotiations, the MRC-Pontiac, the Respite Home in Fort Coulonge, and handmade decorations. The seminar was attended by over 100 people. **Bristol** had a trip to the Purden Conservation Area where they saw wild orchids in their natural environment. Wyman invited the Lorne Sutherland Branch from Arnprior, Ontario, to their July picnic. In return, **Wyman** was invited to Arnprior for an evening of friendship and good fellowship.

ROUVILLE Abbotsford Recycling information given and practiced. Wool Gathering program was well supported and distributed to needy families.

SHEFFORD World Food Day money was collected and given to Meals for the Needy.



Granby West recently presented an Abbie Pritchard Throw to Mrs. Lois Pow, right, seen here with Mrs. Yvette McElravy. Mrs. Pow, who started the Granby West WI Branch, is at present the Publicity Convener. Some years ago, the Throw was given to Mrs. Evelyn Nell, who has since passed away. Her husband thought the Throw should be returned to the branch and Mrs. Yvette McElravy considered it appropriate that Mrs. Pow, who has not been well, should receive it.

SHERBROOKE Ascot members planned a new quilt. A large print Reader's Digest was renewed for a Seniors' home. President

Marion Annesley showed a video of a trip she and her husband took to the West coast. **Brompton Road** branch entertained the Branch Citizenship Conveners. **Lennoxville** held their annual Soup and Sandwich Luncheon and Bazaar at St. Antoine's Parish Hall with handicraft and food tables. At their regular meeting three students from Alexander Galt spoke about their trip to Switzerland. They enrolled four new members of the Belvidere Branch which closed in December and also one new member, Mrs. Thelma Picken of Lennoxville. **Milby** planned to enter a quilt contest sponsored by the Canadian Quilts magazine.

STANSTEAD All branches work for the School Fair. The county buys the seeds and branches inspect gardens. All branches work in the tea room at the county fair. Most branches take part in the County Handicraft Exhibit. **Ayer's Cliff** renewed Ranger Rick magazine for local school. Money was given to two pupils that were taking trips, also money to school cafeteria for World Food Day and for Christmas dinner. There will be 400 bunches of daffodils sold for the Canadian Cancer Society. Decorated jars filled with cookies were given to a seniors' home for Valentine's Day. Sent cookies to Palliative Care Unit of Sherbrooke Hospital. For Founder's Day **Hatley** had a chicken pie dinner to raise funds and Ayer's Cliff attended. Donated money to North Hatley Cafeteria, visited a greenhouse in Ayer's Cliff, and visited the Inverness WI. **Hatley Centre** supported local theatre by selling tickets for benefit play. They are members of the Massawippi Water Protection and are administrators of the community hall. A bake sale was held. **Stanstead North** were guests of Milby WI. Members met to count UNICEF money, then to a restaurant before the meeting. Meeting attended for the group exhibit for Stanstead County Fair. Motto: What makes a good breakfast? Mother!

Carol Petch
QWI Publicity

Newsmakers

On Campus

The School of Dietetics and Human Nutrition was delighted to be the first recipient of the Hotel and Restaurant Suppliers Association (HRSA) trophy given "to an institution for its excellent education program." The trophy was given at the HRSA scholarship reception where DIANE DUFFEY, BSc(NSc)'91, received a scholarship and the Jean-Charles Deziel trophy. Diane is studying for her MBA, part-time, at Concordia University in Montreal.

Congratulations to PIERRE-YVES MONNARD, an Agricultural Engineering student, who won first place standing in the National Student Design Competition at the Winter Meetings of the American Society of Agricultural Engineers held in Chicago last December. The contest is open to students from about 50 universities in Canada and the United States.

Congratulations to NASSER FOTOUHI who won the manuscript competition by the World Poultry Science Association. His manuscript "Influence of divergent selection for abdominal fat content on DNA polymorphisms in the growth hormone gene in chickens" describes part of his research towards a MSc. The award entitled him to a free trip to the 1992 World's Congress in Poultry Science in Amsterdam. Nasser is a student in the Department of Plant Science, but carries out his research in molecular genetics of poultry under the supervision of Dr. Urs Kuhnlein in the Department of Animal Science. This is an example of the multidisciplinary nature of molecular biology.

Off Campus

The '30s

HENRY W.T. WEBB, BSc(Agr)'37, is spending his latest retirement near his home town of Ipswich, Suffolk, England. After retiring in 1967 from his basic career as an agricultural adviser and administrator

of the British Colonial Service in Nyasaland (now Malawi) he was an adviser in Ethiopia for the United Nations Development Program of the Food and Agriculture Organization. A note of interest: After Henry Webb graduated from Macdonald, McGill Registrar, Tommy Matthews, got him a Colonial Agricultural Scholarship which took him to Cambridge University for a year and then to the Imperial College of Tropical Agriculture in Trinidad where he obtained an associateship giving him AICTA after his name. This college is now the agricultural faculty of the University of the West Indies.

The '40s

WINSTON LANGILLE, MSc(Agr)'48, was recently honoured when the Nova Scotia Agricultural College held a special ceremony to name the college gymnasium the Langille Athletic Centre. Professor Langille, who is retired, spent 17 years as coach and athletics advisor to many NSAC sports teams prior to the college having a full time athletics director.

The '50s

In 1991 the late WALTER GRANT, BSc(Agr)'52, from Nova Scotia, was inducted into the Atlantic Agricultural Hall of Fame for his contribution to the development of the agricultural industry and the farm community.

THE '60s

DONALD MacNEIL, BSc(Agr)'61, recently retired from the Nova Scotia Crop and Livestock Insurance Commission.

JOHN HIGGINS, BSc(Agr)'66, MSc(Agr)'73, Chief Engineer with the Extension Services branch of the N.S. Department of Agriculture and Marketing, has accepted additional duties in the administration of provincially-delivered programs under the Canada/Nova Scotia Agri-Food Development and Livestock Feed Development ini-

tiatives. He will also serve as Secretary of the Beef Development Program Committee.

THE '70s

DR. ROBERT COFFIN, BSc(Agr)'71, MSc(Agr)'74, has been appointed by Cavendish Farms as a crop specialist to Malpeque Fertilizers Ltd., Westile Farm Supply, and Cavendish Farms, all of Prince Edward Island. He will provide scientific advice on pesticides and fertilizers and provide other crop production information to farmers and growers.

There are not very many couples where both partners are agricultural engineers – and even fewer that are both Mac grads: DAN, BSc(AgrEng)'77, and CHRISTINE, BSc(AgrEng)'81 (GORMAN) MacKINNON operate a family dairy farm in Brooklyn, PEI. Their 10-month-old son Alexander is the sixth generation on the land. Christine works as an engineer with the PEI Department of the Environment as Supervisor, Air Quality and Hazardous Waste. Dan is actively involved with several farm organizations including the Natural Products Marketing Council and the PEI Artificial Breeders' Association.

GEORGE ANSAH, MSc(Agr)'77, PhD'81, was recently appointed director of research for ISA Babcock's genetics program in Ithaca, New York.

THE '80s

DAVID HALL, Dip'80, and SANDRA SMITH HALL, BSc(Agr)'87, are pleased to announce the birth of daughter Hilary on December 23, 1991.

ELAINE VININSKY, BSc(Agr)'80, is delighted to announce the arrival of Leah Helen Vininsky-Oakes on November 13, 1991. Leah weighed in at 6 pounds 2 ounces.

SHELLEY DEACON, Dip'81, and TONY COUVES, BSc(Agr)'86, are proud to announce the arrival of Eric Anthony Ambrose

on February 11, 1992. He weighed in at 4 pounds, 8 ounces at 5:55 p.m. All are well.

NANCY MacLEAN, BSc(Agr)'83, MSc(Agr)'86, received the Clark Newman Scholarship at the Nova Scotia Agricultural College Autumn Assembly. Nancy is in her final year of study for a PhD.

SYLVIE MALLETTE, BSc(Agr)'83, completed her Dip OHY at McGill in 1989 and has recently accepted a position as Chief, Occupational Health/Safety and Environment for CANMET of Energy, Mines, and Resources Canada. This news was sent in by Fax by Sylvie's husband, STEPHANE D'AMATO, BSc(Agr)'84, who was also very proud to announce the arrival of son, Frederic, born September 30, 1991, in Quebec City.

YVES CHOINIERE, BSc(Agr)'84, was the 1991 Canadian Agricultural Engineer of the year. He received this honour from the Canadian Society of Agricultural Engineering. He is with the Ontario Ministry of Agriculture and Food at Alfred College.

THERESA GREENE, BSc(Agr)'86 and Jean-Marie Choiniere were married on September 28, 1991, and are living in the Eastern Townships.

Agricultural Engineers in New Brunswick: we recently heard of three graduates receiving Extension Engineering positions with the N.B. Department of Agriculture. Congratulations to ROD MacLEAN, BSc(Agr Eng)'87, who is in Grand Falls, JOHN RUSSELL, BSc(Agr Eng)'87, who is in Bathurst, and DANNY WARD, BSc(Agr Eng)'91, who is in Fredericton.

THE '90s

VALERIE ARMSTRONG, BSc(Agr)'90, and JAMES BARTON, Dip'90, were married on October 12, 1991. They are running Valerie's parents' dairy farm in the Napawee, Ont. area.

LISA CALLOW, BSc(NSc)'90, has developed an innovative position in clinical nutrition care at the Montreal General Hospital. As a member of the McGill lung transplant team, Lisa is responsible for pre-op assessment and post-op management of lung transplant patients (primarily victims of cystic fibrosis). She has presented the results of her intervention at the Canadian Dietetic Association Annual Conference (June, 1991) and at the International North American Cystic Fibrosis Conference in Dallas, Texas (September 1991). As a clinical dietitian at the Montreal General Hospital, she also specializes in geriatric nutrition and is currently working on a geriatric risk assessment project.

MARIE-CLAUDE LESSARD, BSc(NSc)'90, has completed her first year as Hospital Food Services Officer in the Canadian Armed Forces. As a foodservice officer, Marie-Claude has already moved up the ranks from Officer Cadet to Lieutenant. She has enjoyed postings in British Columbia; Borden, Ont.; Chatham, N.B.; Valcartier and St. Jean-sur-Richelieu, Que. Future plans - to become the Base Foodservice Officer in Germany or western Canada.

JANE GRAHAM, BSc(NSc)'91, keeps in touch from Espanola, Ont. As the only dietitian in her centre, Jane has her hands full with both clinical nutrition and foodservice concerns. She has wonderful lodging on a lake, enjoys the scenery in her free time, and says a small town does take some getting used to.

AMY ING, BSc(NSc)'91, has returned to Macdonald to study for her Masters in Nutrition. She is looking at the nutritional status of home-bound elderly.

Deceased

K.A. HARRISON, MSc(Agr)'25, of Kentville, N.S., on November 5, 1991.

ALLISON D. PICKETT, BSA'29, MSc(Agr)'36, DSc'59, of Deep Brook, N.S., on

September 18, 1991. Dr. Pickett was the first Provincial Agricultural Representative for Kings County, N.S. This appointment was made in 1928. From 1929 to 1939 he was provincial entomologist for Nova Scotia. He was appointed Officer-in-Charge of the Dominion Entomological Laboratory at Annapolis Royal, N.S. in 1939. He was head of the unit when it moved to Kentville in 1950 and led the entomological research program at Kentville until 1962. At the time of his retirement in 1965, he was Senior Research Scientist for Agriculture Canada. In 1984 the Nova Scotia Agricultural College named the insect museum and laboratory in his honour. The A.D. Pickett Entomological Museum and Research Laboratory, with the assistance of the W.H. Brittain Memorial Fund, is a focal point for students, faculty, and visiting scientists in research endeavours.

GEORGE W. GIBB, BSA'32, of Abbotsford, Que., in October 1991.

ROBERT C. TURNER, BSA'32, MSc(Agr)'49, PhD'51, of Ottawa, Ont., in January, 1992.

STUART HEMSLEY, BSA'33, of Ottawa, Ont., on April 5, 1990.

DR. TERENCE J. FITZPATRICK, BSc(Agr)'51, of Burbank, California, on April 5, 1991.

JOYCE (LUMSDEN) RALPH, BSc(HEc)'52, of Hamilton, Ont., on February 21, 1992.

BARSTOW J. MILLER, BSc(Agr)'57, of Little Current, Ont., on December 15, 1991.

LORNE L. FULTON, BSc(Agr)'58, of Orangeville, Ont. No further information.

FRANK C. TARTE, Dip'67, of Baie d'Urfé, Que., on March 11, 1992.

Dr. Charles Daniel Taper

Professor Charles "Dan" Taper, former professor of Horticulture, died at his home in Halifax, N.S., on January 10, 1992, at the age of 80.

Dr. Taper was born in Highfield, Prince Edward Island, where he obtained his early education. With the completion of a teaching diploma in Nova Scotia, he taught school there for three years then proceeded to British Columbia where he earned a teaching certificate and taught for an additional three years. He joined the Canadian Army, First Survey Regiment Royal Canadian Artillery, in which he served for five years and eight months – five years of that service overseas.

Dr. Taper's first contact with Horticulture was in 1929 when he worked briefly in the Horticulture Division of the Charlottetown Experiment Station. In 1947 he received his BSA from U.B.C. and in 1948 an M.S.A. (Horticulture Plant Physiology) again from U.B.C. He was awarded his PhD in Botany from the University of Manitoba in 1953.

He joined the Department of Horticulture at Macdonald in September 1951 and was named Chair of the Department in 1971. He retired from the Chair in 1976 and, following three years of post retirement appointment, fully retired in 1979.

Dr. Taper taught the pomology courses at the undergraduate, post graduate, and Diploma levels. He directed the first PhD candidate in Horticulture in the university and was involved in several joint post-graduate programs.

As a colleague, Dr. Taper was a dedicated teacher, thorough in his research, and quiet but determined in his approach to departmental problems.

He is survived by his wife Jeanette, his two daughters Janette of State University Blacksburg, Virginia, and Anne (Mrs. F. Sommerville, Halifax), and two grandsons.

Dr. Mamdouh A. Fanous

It was with profound regret that the Macdonald Campus community learned of the death of Mamdouh A. Fanous on January 29, 1992.

Dr. Fanous, a native of Egypt, received his PhD in Crop Science and Statistics from the Oklahoma State University in 1969. He began his career at McGill in 1970 as an assistant professor in the former Department of Agricultural Chemistry and Physics. Although the fields of chemistry and physics were somewhat removed from Dr. Fanous's area of expertise, he was hired to take over the teaching of the courses in Statistics which were then the responsibility of that department. He became Chair of the department in 1976, a position which he held until 1981. In 1986, following the reorganization of departments which took place in the mid-1980s, Dr. Fanous transferred to the Department of Plant Science.

Throughout his career, Dr. Fanous was responsible for the teaching of the courses in Statistics offered on the Macdonald Campus. He taught the undergraduate Statistics I in both fall and winter semesters and the graduate level Statistics II. He developed a course in Non-Parametric Statistics to meet the needs of the many graduate students in our faculty who work with non-parametric data. Then in 1985, he assumed the responsibility for the graduate course in Experimental Design. Dr. Fanous's teaching was honoured at the Convocation of 1987 when he received the Outstanding Teaching Award. This is truly an outstanding achievement considering the difficult nature of the material covered in his courses.

Dr. Fanous's contribution to research was in the advice and unstinting help he gave to colleagues and students from all departments. When not in class, or marking lab work or tests, he was usually in his office advising a constant stream of students and staff on the design of their experiments and

analysis of their data. He occasionally commented to close friends that he would not have had to help as much with analysis if he had been consulted earlier with design.

Dr. Fanous was probably the professor best known among the students who graduated from Macdonald in the last 20 years. Almost every undergraduate and graduate student took at least one of his courses. Those students who came to our faculty with credit for Statistics from other universities and were required to take classes from Dr. Fanous, admitted that his courses were much more comprehensive than those they had taken previously.

In public, particularly in large gatherings Dr. Fanous came across as a serious, quiet almost shy person. To those who knew him well, however, he was warm and friendly and possessed an excellent sense of humour. He demonstrated a deep sense of loyalty to his many friends within and outside the university.

The Macdonald community will greatly miss this outstanding teacher and wonderful friend. We extend our deepest sympathy to his wife Estelle Parisé of Ste. Anne de Bellevue.

(Continued from page 25)

Treena is a top student at Macdonald and is enjoying her time here. She has been an active participant in most phases of campus life. She has been president of the Dietetics and Human Nutrition Undergraduate Society (DHNUS), a DHNUS representative on Students' Council, active in orientation Open House, World Food Day, and other events. She was the recipient of the new Jean Brown Award which she regretted being unable to accept in person as she was in Florida attending the Conference the night of the Scholastic Awards Banquet. She also received a Gold Key Award at the Founder's Day celebrations this past February.



Macdonald Reunion '92 Honour Years 2s & 7s

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Throughout the day there will be selected exhibits and open house visits.

Noted Chemistry Professor, Dr. Joseph Schwarcz, will entertain and enlighten both the young and the young at heart with his unique approach to applied chemistry.

Dr. Roger B. Buckland will host the Vice-Principal's Reception, and the day will close with a barbecue dinner and dancing.

Additional events are being arranged by Class Chairs.

In July a detailed Reunion Brochure will be sent to alumni in the Quebec and Ottawa areas as well as to the honour years (graduates of the years ending in 2s and 7s).

For further information, please call 514-398-3557 or Fax 514-398-7338

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